

Pre-health Science Pathways to Success

PRE-HEALTH SCIENCE PATHWAYS TO SUCCESS

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Fanshawe College Pressbooks
London Ontario



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CONTENTS

Acknowledgements	xiii
Book Overview	xv
About This Book	xvii
Changes From Adapted Sources	xviii

Chapter 1: Welcome to Fanshawe

1.0 Introduction	3
1.1 Welcome to Fanshawe College	4
1.2 Self Assessment	6
1.3 Why College? What's in it for You?	7
1.4 Connecting with our Textbook	11
1.5 Connecting with the People	12
1.6 The Written Rules - Two Training Modules	17
1.7 The Unwritten Rules	19
1.8 Reflection	22
1.9 Fanshawe Resources	24
1.10 Knowledge Check	26

Chapter 2: Pre-Health Science

2.0 Introduction	31
2.1 Pre-Health Science	32
2.2 What is the Pre-Health Sciences Pathway to Advanced Diplomas and Degrees Program	33
2.3 Program Fit	36
2.4 Why Pre-Health Science	39
2.5 Knowledge Check	41

Chapter 3: Job Skills for the Future

3.0 Introduction	45
3.1 Health Perspective	46
3.2 Seven Job Skills	47
3.3 Global Citizenship	48
3.4 Self-Directed Learning	50
3.5 Social Intelligence	53
3.6 Resilience	55
3.7 Novel and Adaptive Thinking	58
3.8 Implementation Skills	60
3.9 Complex Problem Solving	62
3.10 Knowledge Check	65

Chapter 4: Planning Your Career

4.0 Introduction	69
4.1 VARK and Learning Preferences	70
4.2 Myers Briggs Personality Assessment	74
4.3 Other Personality Self-Assessments	77
4.4 Career Connection	78
4.5 Knowledge Check	80

Chapter 5: Pathways

5.0 Introduction	83
5.1 Pre-Health Science	84
5.2 Program: Community Pharmacy Assistant	85
5.3 Program: Dental Assisting	89
5.4 Program: Dental Hygiene	95
5.5 Program: Fitness and Health Promotion	101
5.6 Program: Massage Therapy Accelerated	108
5.7 Program: Medical Radiation Technology	112
5.8 Program: Paramedic	119
5.9 Program: Pharmacy Technician	125

5.10 Program: Respiratory Therapy	130
5.11 School of Nursing	136
5.12 Program: Bachelor of Nursing	137
5.13 Program: Practical Nursing	142
5.14 Other Program Pathways	148

Chapter 6: Skills for Success

6.0 Introduction	153
6.2 Fanshawe Resources	154
6.1 Skills for Success Chapter Contents	158

Chapter 7: Learning & Knowing Yourself

7.0 Introduction	163
7.1 Learning & Knowing Yourself	164
7.2 Self- Assessment	165
7.3 What is Learning?	166
7.4 What Influences Your Ability to Learn?	171
7.5 How Might Preferences, Culture and Personality Impact My Learning?	178
7.6 Learning Challenges	182
7.7 Learning Online	185
7.8 Take Action - Take Charge of Your Learning Experience	188
7.9 Reflective Activities	192
7.10 Career Connections	194
7.11 Fanshawe Resources	196
7.12 Knowledge Check	197

Chapter 8: Academic Integrity

8.0 Introduction	203
8.1 Understanding Academic Integrity and APA Citations	204
8.2 Training - Academic Integrity	208
8.3 Training - Citing and Referencing in APA Format	211
8.4 Knowledge Check	213

Chapter 9: Time Management

9.0 Introduction	217
9.1 Time Management	218
9.2 The Benefit of Good Time Management	221
9.3 The Financial Cost of Poor Time Management	223
9.4 The Cost of Procrastination	225
9.5 How to Manage Time	229
9.6 Prioritization: Self-Management of What You Do and When You Do It	232
9.7 Enhanced Strategies for Time and Task Management	237
9.8 Career Connection	244
9.9 Fanshawe Resources	245
9.10 Knowledge Check	246

Chapter 10: Remembering What You Read

10.0 Introduction	251
10.1 Improving Your Memory	252
10.2 The Nature and Types of Reading	257
10.3 How Do You Read to Learn?	262
10.4 Effective Reading Strategies	266
10.5 Knowledge Check	280

Chapter 11: Taking Notes

11.0 Introduction	285
11.1 Taking Notes	286
11.2 Notetaking	288
11.3 General Tips on Notetaking	295
11.4 Career Connection	296
11.5 Fanshawe Resources	298
11.6 Knowledge Check	299

Chapter 12: Taking Tests

12.0 Introduction	303
12.1 Taking Tests	304
12.2 Your Purpose and Past Provide Focus	306
12.3 Study Strategies - Know the Format	311
12.4 Study Strategies - Know the Question Types	313
12.5 Effective Studying	315
12.6 Taking Action - Strategies for Math Tests	318
12.7 Group Studying	320
12.8 Taking Action for Test Anxiety	322
12.9 Fanshawe Resources	324
12.10 Knowledge Check	325

Chapter 13: Technology and Research

13.0 Introduction	331
13.1 Essential Skills	332
13.2 Word Processing	333
13.3 Internet Research	337
13.4 Electronic Communication	340
13.5 Organization and Storage	342
13.6 Conducting Research	345
13.7 Knowledge Check	354

Chapter 14: Writing and Presenting

14.0 Introduction	359
14.1 Writing and Presenting	360
14.2 Interpersonal Presentation Skills	362
14.3 Planning the Presentation	369
14.4 Presentation Aids	378
14.5 Delivering the Presentation	382
14.6 Knowledge Check	390

Chapter 15: Decision Making and Problem Solving

15.0 Introduction	395
15.1 Types of Thinking	396
15.2 Decision Making and Solving Problems	399
15.3 Contingency Planning vs Crisis Management	401
15.4 Career Connection	404
15.5 Fanshawe Resources	406
15.6 Knowledge Check	407

Chapter 16: Communication Skills – Collaborating with Others

16.0 Introduction	413
16.1 Communication Skills	414
16.2 Self-Assessment	415
16.3 The Communication Process	417
16.4 Opportunities for Effective Speaking	420
16.5 Opportunity for Active Listening	422
16.6 Online Discussion Forums	424
16.7 Team and Group Work in Action	426
16.8 Connecting and Communicating in Action	431
16.9 Career Connection	434
16.10 Fanshawe Resources	436
16.11 Knowledge Check	437

Chapter 17: Equity, Diversity and Inclusion

17.0 Introduction	443
17.1 What is Diversity?	445
17.2 Types of Diversity	448
17.3 The Benefits of Diversity	452
17.4 Embracing Diversity Thought Actions	456
17.5 Reflection	458
17.6 Career Connection	459
17.7 Fanshawe Resources	460

17.8 Knowledge Check	462
Glossary	465
References	478
Ancillary Resources	481
Versioning History	482

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BOOK OVERVIEW

Book Overview

Part 1: Fanshawe College

- [Chapter 1: Welcome to Fanshawe](#)

Part 2: Pre-Health Science

- [Chapter 2: What is Pre-Health Science?](#)

Part 3: Job Skills and Your Career

- [Chapter 3: Job Skills for the Future](#)

Part 4: Career Development

- [Chapter 4: Planning Your Career](#)

Part 5: Pathways

- [Chapter 5: Pathways](#)

Part 6: Skills for Success

- [Chapter 6: Skills for Success](#)
- [Chapter 7: Learning & Knowing Yourself](#)
- [Chapter 8: Academic Integrity](#)
- [Chapter 9: Time Management](#)
- [Chapter 10: Remembering What You Read](#)
- [Chapter 11: Taking Notes](#)
- [Chapter 12: Taking Tests](#)
- [Chapter 13: Technology and Research](#)
- [Chapter 14: Writing and Presenting](#)
- [Chapter 15: Decision Making and Problem Solving](#)
- [Chapter 16: Communication Skills – Collaborating with Others](#)
- [Chapter 17: Equity, Diversity and Inclusion](#)

ABOUT THIS BOOK

This textbook was created for the Pre-Health Sciences Pathway to Advanced Diplomas and Degrees program (PHS) program.

This resource will be used to identify the recommended skill set for health science programs and overall foundational skills for health science and other science-related programs. A process for identifying goals and outlining a pathway for success to meet those goals will be explored. Students may also use this resource to identify a career path based on program fit, build a pathway for success to a career in health sciences or apply these foundational skills to an alternate determined pathway.

Accessibility Statement

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The web version of this resource has been designed to meet [Web Content Accessibility Guidelines 2.0](#), level AA. In addition, it follows all guidelines in [Appendix A: Checklist for Accessibility](#) of the [Accessibility Toolkit – 2nd Edition](#).

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Please include the following information:

- The location of the problem by providing a web address or page description
- A description of the problem
- The computer, software, browser, and any assistive technology you are using that can help us diagnose and solve your issue (e.g., Windows 10, Google Chrome (Version 65.0.3325.181), NVDA screen reader)

Feedback

Please share your adoption, and any feedback you have about the book with us at oer@fanshawec.ca

CHANGES FROM ADAPTED SOURCES

The following content was revised, changed or added to create this version.

Overall	Updated formatting.
Chapter 1	Removed SOAR specific elements; added Pre-Health Science perspectives and examples; added knowledge application questions; added glossary terms.
Chapter 2	New content.
Chapter 3	Replaced examples with Pre-Health Science examples; added Pre-Health Science perspectives and student quotations; added glossary terms.
Chapter 4	Added page on career connections; added glossary terms.
Chapter 5	New content.
Chapter 6	New content.
Chapter 7	Updated workplace application to health field; added reflective practice to knowledge check; removed SOAR specific elements; added glossary terms.
Chapter 8	Added knowledge check activities; added glossary terms; changed policy references to connect to Fanshawe College resources.
Chapter 9	Removed SOAR specific elements; added glossary terms; replaced quotations with Pre-Health Science quotations; added knowledge check questions.
Chapter 10	Added Pre-Health Science quotations and examples; added glossary terms; added knowledge check questions.
Chapter 11	Removed SOAR specific elements; added Health Science quotation; added glossary terms.
Chapter 12	Removed SOAR specific elements; added Health Science quotation; added glossary terms.
Chapter 13	Added some learning objectives; added references to Fanshawe services; added reflective practice questions; added glossary terms.
Chapter 14	Added h5p activity; added glossary terms.
Chapter 15	Removed SOAR specific elements; added Health Science quotation; added glossary terms.
Chapter 16	Removed SOAR specific elements; added glossary terms.
Chapter 17	Removed SOAR specific elements; added reflection activity.

CHAPTER 1: WELCOME TO FANSHAWE

Chapter Outline

- [1.0 Introduction](#)
- [1.1 Welcome to Fanshawe College](#)
- [1.2 Self Assessment](#)
- [1.3 Why College? What's in it for You?](#)
- [1.4 Connecting with our Textbook](#)
- [1.5 Connecting with the People](#)
- [1.6 The Written Rules: Two-Training Modules](#)
- [1.7 The Unwritten Rules](#)
- [1.8 Reflection](#)
- [1.9 Fanshawe Resources](#)
- [1.10 Knowledge Check](#)

1.0 INTRODUCTION

Learning Objectives

After reading this chapter, you should be able to do the following:

- Reflect on why you are in college
- Understand the written and unwritten rules of being a Fanshawe College student
- Understand that this is your learning journey and you are responsible for your success
- Identify key connections to help you with your success at Fanshawe College
- Identify how this resource is structured and how it can help you be a more successful student
- Recognize how academic success connects to career success

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1.1 WELCOME TO FANSHAWE COLLEGE



Congratulations on your decision to attend Fanshawe College!

We know that college is not mandatory and it is not free. You have made a *choice* to commit your time to earn a certificate, diploma, degree, or trade and many of you have had to work hard to get here.

We are all at different places in our lives with different goals, skills, and abilities, but regardless of your past experiences, your future success at Fanshawe will be the direct result of your commitment, focus, and effort.

Like everything else in life that leads to meaningful results, success is not automatic. There will be a lot of things demanding your time; classes, homework, studying, work, family, friends, health and wellness and you may feel overwhelmed at times.

This resource is designed to help you:

1. Identify what you want to get out of college (your **GOAL**).
2. Identify some strategies to help you reach your goal (your **PLAN**).
3. Identify and apply what steps you need to take to execute this plan (your **ACTION**).



Pre-Health Perspective

In the context of preparing for a career in healthcare, this resource will also help you:

1. Apply your knowledge to prepare for your career in healthcare
2. Identify key skills required for success in the healthcare career of your choice

You have a lot at stake and that is where this resource can help!



It's very important to take this year to look at yourself as a learner, as somebody in the educational setting what works best for me.

Critical thinking is another thing that has really helped me in my job with Pre-Health Science you really see it kick up a notch when it comes to being able to prioritize all of the different responsibilities you have.

You need to be able to communicate effectively what you can and cannot do, and know that you are always going to the same end goals as your partner in that situation whether it be your co-worker, your superior, your patient, your teacher, and be ... open and honest and a good communicator.

Bailey McCabe – *Fanshawe Instructor, Medical Radiation Technologist, Pre-Health Science Graduate*

What Students Say



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=111#oembed-1>

Video: "[This is POSSIBILITY](#)" By Fanshawe College [2:40] *Transcript Available.*

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1.2 SELF ASSESSMENT

Where are you now?

Please answer the following self assessment to determine what information you need to access going forward at Fanshawe College.

Statement	Yes	Unsure	Not Yet
1. I feel comfortable with accessing my course information on Fanshawe Online.			
2. I have clear-cut career interests and have already planned my college program to prepare me best for my future work.			
3. I know who my academic advisor is and how to contact them.			
4. I have all the personal traits of a successful college student.			
5. I know how the learning process functions and make an effort to maximize my learning at each step in this process.			
6. I know how I learn best and use it to my advantage when learning new things.			
7. I know how to stay focused in class or online to gain the most from my classes.			
8. I am aware of my educational institution's policies for academic integrity and honesty.			
9. I know where to find all the resources of my school that can help me succeed both academically and personally.			
10. I am confident I can earn the grades I need to pass my classes and graduate from my program.			
11. I know the first term of college will be the most difficult, but I am fully prepared and take responsibility for my own success.			
12. I am taking steps every day to ensure I am successful in every aspect of the school experience.			
13. I know how to create in-text citations and full references in APA format to show where I used information from my text or other research.			
14. I have a good support system (friends, family, others) who I can rely on when things get tough.			
15. I feel very comfortable asking questions of my professors whenever I feel confused (whether in class or via email or video chat).			

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1.3 WHY COLLEGE? WHAT'S IN IT FOR YOU?

Video: University Degrees vs College Degrees



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Video: “[University Degrees vs College Degrees](#)” by [Fanshawe College](#) [2:40] *Transcript Available.*

When asked, most students say they’re in school primarily for the job or career they expect to follow after they get their certificate, diploma, trade, or degree. They are correct that education pays off enormously in terms of future earnings, job security and stability, and job satisfaction. Every statistic shows that people with a post-secondary education will make much more in their lifetime on average (much, much more than the cost of schooling itself) and be much happier with the work they do.

Many of your classes are designed to give you the **technical skills** required to compete in this rapidly changing job market. These are the types of skills you may see listed on a job posting and might include, understanding the biology, physiology and chemistry of the human body, using health-sciences and other health-related terminology, good communication skills, or good time management.

A 2022 poll of 1000 Canadian employers identified that almost 80 per cent see value in hiring someone based on their “soft skills” including their adaptability, attention to detail and positive attitude toward learning rather than specific job-related knowledge and technical skills.

According to Michelle Slater (2022), director at Indeed, Canadian employers care more deeply about what the person can contribute to the team in terms of their attitudes versus what skills they have that they’re bringing into the role.



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Student Perspective

“Of the students in the Nursing program, those of use who have taken Pre-Health Science find the course so much easier than those students who did not take Pre-Health Science.”

First-year nursing student – Fanshawe College

This textbook has been created to provide you with the opportunity to self-assess your current “soft skills”; identify opportunities to strengthen them and provide ways to take action now, while at college to develop them further.

Why Focus on “Soft Skills”?

The job market is ever changing!

- A 2022 survey of 1,000 Canadian businesses identified that in a tight or competitive job market, employers may not be able to hire externally. Instead, they are identifying those with the soft skills who could be trained on the hard skills and step quickly into a much needed position (Slater, 2022).
- COVID impacted the way we do business and the current work from home, hybrid work models rely on being adaptable, resilient, learning on your own, and complex problems solving using your your social intelligence by connecting and communicating through a screen.

Fanshawe College has identified 7 Job Skills for the Future that you will be encouraged to develop

throughout your time at Fanshawe. You will learn more about this in [Chapter 3: Job Skills](#).



“Silex Job Skills For the Future” © Fanshawe College used with permission, All Rights Reserved

How This Course Helps You Succeed

There are a lot of things that have to come together for you to be successful and it’s important to recognize that some students do not succeed, and drop out within the first year.

Sometimes it’s due to an unsolvable financial problem or a personal or family crisis, but the most likely reasons that a student in Canada will drop out include an ineffective social network (not getting involved in extra-curricular and volunteering opportunities), a lack of academic abilities, and poor attitudes and habits towards post-secondary education (Ma & Frempong, 2008).

Everyone will have their own experiences, strengths and areas they want to improve. Throughout the textbook, you will have the

chance to reflect on who you are now and areas you can improve, and each chapter will identify Fanshawe resources that you can connect with to help you develop your social, academic, and wellness supports.

Listen and watch as Francisco Munoz Arguello talks about his experience and why he chose to move to a new country and go back to school with his family.

Video: This is COMMUNITY



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/prehealthpathways/?p=118#oembed-2>

Video: [This is COMMUNITY](#) by [Fanshawe College](#) [2:39] *Transcript Available.*

The first half of this textbook, you'll have the opportunity to learn more about the Pre-Health Science program and the various career pathways available to you after completing the program. You'll even hear from some professionals in the field about their career and the learning journey that brought them to where they are today.

The second half of the text, you'll have the opportunity to develop your skills in **listening, reading, remembering, decision making, communication, taking notes and studying** in ways that **use your time efficiently** and **help you pass tests**, and **academic integrity**.

One warning: you might not at first see an immediate payoff for everything you read in this book. When it comes to certain things, such as tips for how to take good notes in class to help you study later on for a test, you will get specific, practical advice you can put to use immediately to get a better grade. But not everything is as obvious or immediately beneficial.

Some of the things you'll read about here involve ideas you'll need to think about. Some things will help you get to know yourself better, and understand more clearly what you really want from your education and how to go about attaining it.

However, if you care enough to want to succeed in school, and read these chapters and try to use the information, suggestions, and tips presented here, you *will* succeed in your educational goals.

Being successful as a student doesn't happen by accident. It takes commitment, focus, and effort. There are skills and methods to be successful which can be learned and practiced. It all starts with taking stock of where you are now.

Throughout this text you will have the opportunity to work on and develop skills in many of the areas you have identified above that will



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impact your student success. Some topics are specific to post-secondary while others will be useful in life in general, such as communication skills, time management. Hopefully this resource will give you many valuable skills going forward.

Detailed learning outcomes for each topic can be found in the introductions to each module.

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1.4 CONNECTING WITH OUR TEXTBOOK

Getting the Most out of the Textbook

This book works with your Fanshawe Online (FOL) course site and is divided into chapter content. These two resources provide a foundation for your success. Becoming familiar with this book, and your course site will help you get the most out of your experience.

Navigating your course site may take time to learn. Each professor may do things differently so it will be important to invest time reviewing each of your class sites to be able to identify:

- Your course schedule of due dates
- Weekly modules that include information about topics covered each week
- Quizzes
- Discussion boards
- Assignment instructions
- Other graded work

By investing this time in the first week of classes, you can identify any problems you are having, reach out to your professor or contact your student advisor for assistance.

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1.5 CONNECTING WITH THE PEOPLE

Video: Here for You



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=125#oembed-3>

Video: “[Fanshawe Student Success – Here For You](#)” By Fanshawe College [0:34] *Transcript Available.*

Who Can Help?

Fanshawe College has a diverse network of supports to help you during your time at Fanshawe and beyond. Sometimes identifying the right person or the right resource can be challenging and if you are under stress, it can be even harder.

Throughout this book, look for videos and contact information that will help you identify important resources who are here to support you.

Key Contacts

- Professors/Faculty
- [Academic Advisor](#)
- [Career and Employment Services](#)
- [Financial Aid](#)
- [Fanshawe Library Learning Commons: Peer Tutoring](#)



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“The first decision I made was connection with colleagues/course mates and my professors as soon as we had our first class because I knew that the connection would make it easy for me and it would help me cope with the stress of having to deal with emotions, loneliness, and pressures alone, especially for we international students. From the class schedule I organized myself and familiarize myself with the easiest route to my class and I did not miss classes or due date for assignments or test. If you cannot help missing a class, always let your professor know you would not be in class. Our professors are nice people, and they know life happen to different people at any time. Another important consideration is that I set target for each course and with my clique of friends and we made sure each of us is accountable and motivated each other in areas where we are weak. I also visited the international centre, career and employment services. They helped me with my resume (aligning it to the Canadian standard) so it better positions me for getting a good job and also gave me some links to check out for part time jobs. Lastly, they help me with my LinkedIn profile (It looks more professional now). The extra effort you make to make these connections will enrich your experience and help you be successful.”

Adedayo Adesile: *Fanshawe College, 2023*

You may have heard the saying “a problem shared is a problem halved” but the problem shared does not get halved until it is shared with the right person, at the right time.

For now, let’s focus on your most important contacts in your first few weeks. During the term, you will continue to grow your list of contacts.

Your professors and your academic advisor are the most important people to get to know.

How Do I Contact my Professors?

Your Professor is *always* the expert on what is expected from you in your class work.

- Going to class allows you to ask questions, share ideas with others, and build your peer and professor network! However, if you are learning online or have questions after class time, your professor should be your first point of contact. This will mean learning how to effectively use your Fanshawe Online email to ask good questions, and regularly checking your email to get answers.

Fanshawe Online Correspondence

Your **Fanshawe Online email account** will be the way your professor communicates with you. All email must include:

Course Code and Section Number

- When you email from within the course, some information will automatically be inserted in the subject for you – you may have to delete some information if it includes more than **YOUR** section number. Course code and section number can be found on your timetable on Webadvisor.

A subject line that describes the content of your e-mail

- This helps the reader and sender organize and prioritize emails being sent and received (i.e.. ANAT1002-03 W23 Assignment #2 question about format).

A salutation

- If you are not sure how to spell your professor's name, use Dear Professor. Do not use casual language like "Hey" or "Hello Dear".

Include a closing and sign your emails

- Set up an automatic signature in Outlook that will display your preferred name, student number, and program information. In the workplace you would include your name, title, company name, and contact information.
- If you are expecting a response to your email, include something like, "I look forward to hearing from you,"

Be brief, clear and always be professional. Use proper case, sentence structure, and grammar

- People have short attention spans so keep it short and separate or number items in your email if you need a response or are responding to more than one thing. This will help ensure nothing gets missed and saves back and forth emails.

While you may have friends at Fanshawe who have taken the same course or program as you, they are not the one who will be grading your work. Regular, professional communication with your professor will be important.

How Do I Contact My Academic Advisor?

Your **Academic Advisor** supports your journey through the Fanshawe College system.

- They are the experts when it comes to providing advice on dropping a course, your schedule, changing programs, how to communicate with your professors and can connect you with people to help you with your job search, questions about international visa, work permits, parking, security etc.

- Identifying your academic advisor and reaching out for help will demonstrate your commitment to your success

Video: Fanshawe's Academic Advisors



One or more interactive elements has been excluded from this version of the text. You can view them online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=125#oembed-1>

Video: [Lawrence Kinlin School of Business, Fanshawe College Academic Advisors](#) by [KinlinSchool](#) [8:37] *Transcript Available.*

Questions About: assignments, quizzes, due dates, group work, missed classes, etc.

Your professor for each class is the course expert – see each course site on Fanshawe Online for professor email contact information

Questions about schedules, co-op, dropping a course, changing programs, fees, counselling, peer tutor, etc.

Your academic advisor. Your advisor will be based on your program so you will have to [check the Fanshawe College website](#), look for your program and find the appropriate contact person

How to be Successful Going Forward

- Make a list of all your professors, office hours they are available to connect and how to contact them. This information should be on your course page for each class.
- Use the link at the end of this chapter, identify YOUR academic advisor for YOUR program and their email address. Check their online booking portal to see how to book an appointment.
- If you are on campus, [review the map of Fanshawe College](#) to see where you can find your classrooms and other important places, or if you are an online student, identify your professors' office hours.
- Check your Fanshawe Online email and look up how to create an auto signature.
- Check review the elements of your course sites for all classes so you can identify your classmates and their email addresses (Go to Communications – Classlist).

Video: Community and Connection – Fanshawe Institute of Indigenous Learning



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=125#oembed-2>

Video: [Community and Connection](#) by [Fanshawe Institute of Indigenous Learning](#) [11:17] *Transcript Available.*

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1.6 THE WRITTEN RULES - TWO TRAINING MODULES

You've Been Accepted — Now What?

When you accepted your offer to come to Fanshawe, that meant a lot of things got put in motion! You had to organize your finances, living situation, technology, schedule, work, and so many other things.

Sometimes students don't realize that accepting your offer to become part of the Fanshawe Falcon community means you have agreed to abide by all the policies that govern you while you are a student. Some of these policies may be limited to when you are on campus, but some may extend to off campus activities like travel with a sports team, attending an off campus event, while on co-op etc.

This is very similar to the workplace. At work, you would have to know various policies like the Code of Conduct, perhaps Workplace Health and Safety, Sexual Harassment Policy, etc. Educating yourself about the requirements of your job will ensure you reduce the risk of doing something that could get you fired.

Policy information can be found on our Fanshawe website and is worth reviewing. In particular the [Student Code of Conduct](#).

Your classes may also have policies about late assignments, attendance, or missed exams that are important to know. Take time to locate that information on your course site or ask your professor where it can be found.

Fanshawe College Mandatory Training – Academic Integrity Policy

All first year students at Fanshawe College will be required to complete the Academic Integrity Training module that is included in our textbook in [Chapter 8](#). The training module is intended to inform your understanding of academic integrity and academic offences to ensure you are set up for success.

You will be required to demonstrate your understanding of how this policy relates to your academic work to pass this course. Like in the workplace, you may be required to complete this training on a regular basis. Policies change over time and regular review and reminders are important.

The full Academic Integrity Policy ([Policy A136](#)) can be viewed by searching the Fanshawe website.

Please check your course site to determine when this training must be completed and how to submit your proof of completion.

Additional Training – How to use APA formatting to Cite and Reference

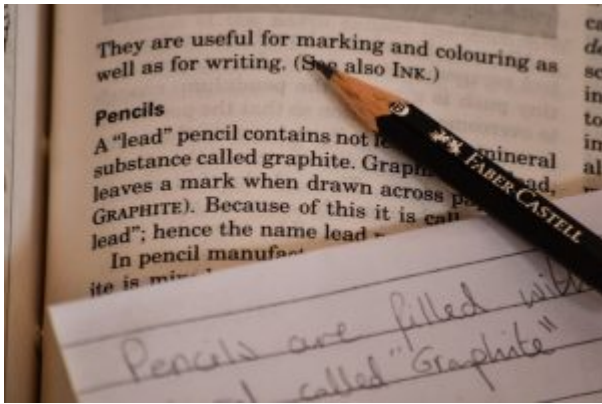


Photo by [mac231](#), Pixabay License

To further develop your understanding of how to avoid academic offences, this text also includes a training module on how to use APA format to create in-text citations and references in your work. This is a required element to show where you have borrowed ideas, fact, pictures, graphs, videos, etc. and to give credit to the creator.

Any written work that you submit must be properly referenced and, unless otherwise indicated, APA format is the format you must use. For this reason, APA training is included in Chapter 8 of this textbook.

[“1.5 The Written Rules – Two Training Modules”](#) from [Fanshawe SOAR](#) by Kristen Cavanagh is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](#), except where otherwise noted.

1.7 THE UNWRITTEN RULES

The Hidden Curriculum

The **hidden curriculum** is a phrase used to cover a wide variety of circumstances at school that can influence learning and affect your experience. Sometimes called the invisible curriculum, it varies by institution and can be thought of as a set of unwritten rules or expectations.

The expectations *before, during, and after class*, as well as what you should do if you miss class, are often unspoken because many professors assume you already know and do these things or because they feel you should figure them out on your own. Nonetheless, some students struggle at first because they don't know about these habits, behaviours, and strategies. But once they learn them, they are able to meet them with ease.



Becoming familiar with these expectations will help you develop your complex problem solving and social intelligence skills.

Situation: According to your schedule, your professor is lecturing on the chapter that covers S.M.A.R.T goals on Tuesday of next week.



Sounds pretty straightforward and common. Your professor lectures on a topic and you will be there to hear it. However, there are some unwritten rules, or hidden curriculum, that are not likely to be communicated. Can you guess what they may be?

- What is an unwritten rule about what you should be doing before attending class?
- What is an unwritten rule about arriving late to class?
- What is the unwritten rule about what you should be doing in class?
- What is an unwritten rule about what you should be doing after class?
- What is an unwritten rule if you are not able to attend that class?

Some of your answers could have included the following:

Before Class

Read the assigned chapter, take notes, record any questions you have about the reading.

Arriving to Class

Arriving late can disrupt the class so be respectful by arriving a few minutes early to settle in, think about what you know about the topic. Ask your professor about what the expectations are if you arrive late.

During Class

Take detailed notes, ask critical thinking or clarifying questions, avoid distractions, bring your book and your reading notes.

After Class

Reorganize your notes in relation to your other notes, start the studying process by testing yourself on the material, make an appointment with your professor if you are not clear on a concept.

Absent

Communicate with the professor prior to class, get notes from a classmate, make sure you did not miss anything important in your notes.

Other examples:

Information may not be presented to you in a way that you understand easily or may challenge your current ways of thinking. It may be the professor or the content itself but you find it challenging to stay engaged in learning.



Imagine three different classes on the exact same subject and taught by the same instructor. One class is held in a large lecture hall and has over 50 students in it, one meets in a small classroom and has fewer than 20 students and the third is an online class where the students don't meet with the professor at the same time. Each group will have different experiences when it comes to being able sharing information and ideas due to the size and timing. Each learning environment will require students to use novel and adaptive thinking to adjust to the learning environment to be successful.

Another instance where class circumstances might heavily influence student learning could be found in the class schedule. You may have classes that start at 8 AM and run most of the day or you may have evening classes or only a single one hour class in the middle of the day. Personal circumstances may arise that you were not expecting and your carefully planned schedule no longer works. Your anatomy class is scheduled to meet on Mondays and the due date for assignments are Fridays so you may benefit from having all week to finalize their work before handing it in. But if another student has the same class, and it meets on Fridays, those students might not have as much free time just before handing in the assignment. Your ability to adapt will become important to ensure you plan ahead and keep organized.

Working Within the Hidden Curriculum

The first step in dealing with the hidden curriculum is to recognize it and understand how it can influence your learning. After any specific situation has been identified, the next step is to figure out how to work around the circumstances to either take advantage of any benefits or to remove any roadblocks.

To illustrate this, here are some possible solutions to the situations given as examples earlier in this section:



Professors and Content: Simply put, you are going to encounter instructors and learning activities that you find easier to understand than others. The key is to learn from them regardless. In either case, take ownership of your learning and even make an effort to learn about other perspectives, even if it is only for your own education on the matter. There is no better time to expose yourself to other opinions and philosophies than in college. In fact, many would say that this is a significant part of the college experience. With a growth mindset, it is easy to view possible problems as a learning opportunity.



Classroom/Scheduling

Circumstances: These kinds of circumstances often require a more structured approach to turn the situation to your advantage, but they also usually have the most obvious solutions. In the example of the large class, you might find yourself limited in the ability to



participate in classroom discussions because of so many other students.

One option would be to speak to several classmates and create your own discussion group. You could set up a time to meet, or you could take a different route by using technology such as an online discussion board, a WhatsApp group, or even a group text. Several of the technologically based solutions might even be better than an in-class discussion since you do not all have to be present at the same time. The discussion can be something that occurs all week long, giving everyone the time to think through their ideas and responses.

Again, the main point is to first spot those things in the hidden curriculum that might put your learning at a disadvantage and devise a solution that either reduces the negative impact or even becomes a learning advantage.

Your academic advisor is a great person to connect with in helping to find solutions to some of these challenges.

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1.8 REFLECTION

“Being reflective allows individuals to think about their habits, preferences, and behaviours. Reflection is a useful skill because it helps individuals become more aware of themselves, which allows them to adjust their thoughts and behaviours for self-improvement while also gaining a deeper understanding of their values, strengths, and priorities.”

(Indeed Editorial Team, 2022, para. 1)



Reflection

Answer the reflection questions below in full sentences. Once complete, download your answers. Your professor may ask you to post your answers to a discussion board either in writing, or in a video introduction.



An interactive HSP element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=137#h5p-2>



Exercise: Where Do You Want to Go?

Think about how you answered the questions at the beginning of the chapter. Be honest with yourself. On a scale of 1 to 10, how would you rate your present skills for succeeding in your program, with 1 being “not very strong” and 10 being “very strong”?

In the following list, select the three most important areas that you feel would benefit you most:

- Setting overall goals for this term

- Organizing my time (scheduling my time, prioritizing, etc.)
- Finding the best career for my interests and skills
- Developing my online skills for accessing course work
- Developing a positive attitude for school
- Adapting and broadening my personal learning preference
- Getting the most out of classes large and small
- Following all school policies
- Identifying and taking advantage of all college resources (which includes people)
- Getting the best grades I can get
- Practising my communication skills with my peers and professors

Are there other areas or skills that need more attention in order for you to succeed in school? Write down other things you feel you need to work on.

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1.9 FANSHAWE RESOURCES

Fanshawe College Here For You

Here For You is a core principle that inspires our relationship with you, our students. Whether you're new to Fanshawe or just looking for support from one of our many departments, we're here to help you succeed. This is your life, and your student journey, but the reason we show up every day is to support you however we can. We are **here for you**.

- Get involved by subscribing to the [Fanshawe Student Union Instagram Account](#)
- Investigate [volunteer opportunities](#) at Fanshawe to meet new friends, get Canadian work experience, upgrade your resume and social skills and become an active part of the community

Video: Student Success at Fanshawe

This video is from the Fanshawe Student Union President Ricardo Souza, Fanshawe Student Union President 2021-2022 outlines how they can support you.



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/prehealthpathways/?p=141#oembed-1>

Video: "[Student Success at Fanshawe- Fanshawe Student Union \(FSU\)](#)" By Fanshawe College [1:45] *Transcript Available.*

Getting Connected

Review the links below to start to build a contact list of supports available to you at Fanshawe College. Set a goal to investigate ONE thing this term. The more you know about what is out there, the better decisions you will make.

[Student Services](#)

[Academic Advisors](#)

[Find a Mentor](#)

[Find a Peer Tutor](#)

[Events](#)

[Sign Up for Intramural Sports/Gym Schedule](#)

[Health and Wellness Supports](#)

[Math, Writing, Research and Study Help](#)

[Clubs and Activities](#)

[Interrobang – Fanshawe Student News Podcasts](#)

“It is hard to ask for help. But, in college we can practice doing hard things in this safe environment.

I know how hard it is to ask for help as I used to be afraid to reach out to professors or any other staff. In April 2022, I was almost homeless and had no one here in London, Canada. I went to the Fanshawe International office twice, but backed out because I was afraid to explain my situation.

But finally, I **pushed myself** and went to talk to them. I reached out to Laura Costigan (Regulated International Student Immigration Advisor) and explained my situation. She calmly listened to me and gave me lots of options, among which one was to stay at Fanshawe Residence.

I was late to apply for summer residence, but she contacted the manager and copied me in the email and helped to book a seat for me starting on the 15th of April. For 15 days, I stayed at a motel suggested by her, and as a Fanshawe student, I received a reasonable discount too. When we face our problems and ask for help, we are no longer alone. That was a huge lesson for me and with practice, it does get easier. Just ask.”

Bina Poudel: *Fanshawe College*

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1.10 KNOWLEDGE CHECK

Welcome to your New Chapter at Fanshawe

College is a choice that requires commitment, focus, and effort to be successful.

Developing transferrable skills, like Fanshawe’s 7 Job Skills for the Future can help you be successful in an ever changing job market.

Fanshawe offers supports to help you with your academic, social, and wellness to help you be successful in your first year.

A commitment to Academic Integrity is expected from all students, which includes learning and following the policies to ensure a fair and honest environment.

There are written and unwritten rules you must learn to ensure your success as a student, and you will be expected to demonstrate adherence to college policies and practices by completing training and demonstrating your understanding on a daily basis.

Your academic advisor and professors are your most important partners in learning. Investing in developing a relationship with them will mean you have support when you need it.

Reflecting on your strengths and weaknesses can help you clarify your goals, prioritize what steps you need to take to achieve them and provide motivation to keep going when things get tough.



Reflective Practice

What are soft skills do you feel you have and could develop?

What are some things you should be aware of with “hidden curriculum”?



Applying Your Knowledge



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=143#h5p-7>



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=143#h5p-8>



An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=143#h5p-9>

Glossary

Academic Advisor

Hidden Curriculum

Soft Skills

Technical Skills

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CHAPTER 2: PRE-HEALTH SCIENCE

Chapter Outline

[2.0 Introduction](#)

[2.1 Pre-Health Science](#)

[2.2 What is the Pre-Health Sciences Pathway to Advanced Diplomas and Degrees Program](#)

[2.3 Program Fit](#)

[2.4 Why Pre-Health Science](#)

[2.5 Knowledge Check](#)

2.0 INTRODUCTION

Learning Objectives

After reading this chapter, you should be able to do the following:

- Define the goals of the Pre-Health Sciences Pathway to Advanced Diplomas and Degrees (PHS or Pre-Health Science) program
- Identify program fit for health-related programs
- Differentiate between PHS and other foundational science programs

2.1 PRE-HEALTH SCIENCE



Greg Donde,

RRT, BHSc, MSc, FCSRT



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/prehealthpathways/?p=72#oembed-1>

Current Employer	Professor – Respiratory Therapy Program, Fanshawe College Registered Respiratory Therapist – Neonatal Intensive Care Unit, McMaster Children’s Hospital Registered Respiratory Therapist – St. Thomas Elgin General Hospital
Skills you use Professionally	As a respiratory therapist, you have to be adaptable, quick thinking, and develop excellent critical thinking and troubleshooting abilities. You also need the technical skills to perform lifesaving tasks such as endotracheal intubation. Lastly, effective communication with patients, family members, and the health care team is essential.
Favourite Memory from time at Fanshawe	As a student in the respiratory therapy program, the clinical applications lab courses provided an opportunity to apply what we were learning in the classroom. It also allowed us to perform skills and procedures on mannequins and the occasional classmate. We had the opportunity to perform a skill on a classmate that involved inserting a catheter through the nose with the tip sitting just above the trachea. I was so excited, I decided to perform the procedure on myself.
Credentials/ Past professional Experiences	Master of Science Respiratory Care Leadership, Northeastern University Bachelor of Health Science, Thompson Rivers University Respiratory Therapy Advanced Diploma Program, Fanshawe College Pre-Health Science Certificate, Fanshawe College Fellowship of the Canadian Society of Respiratory Therapists (FCSRT) Neonatal Resuscitation Program (NRP) Instructor Pediatric Advanced Life Support (PALS) Instructor Acute Care of at-Risk Newborns (ACoRN) Instructor Canadian Red Cross First Aid and CPR Instructor Certification (2005-2010)
One thing you would tell your student self	Hard work and dedication have allowed me to achieve my goals. It also helped that I enjoyed what I was learning, and the career I choose.

2.2 WHAT IS THE PRE-HEALTH SCIENCES PATHWAY TO ADVANCED DIPLOMAS AND DEGREES PROGRAM

What is the Pre-Health Program?

The **Pre-Health Sciences Pathway to Advanced Diplomas and Degrees (PHS or Pre-Health Science) program** provides students with the opportunity to study subject areas relevant to health career programs at Fanshawe College and to instill an appreciation of the professional roles, responsibilities and academic requirements of health care disciplines. This program is designed to help students earn university-level credits in a supportive college environment and to develop confidence and build strong academic, communication and research skills, while adjusting to a post-secondary learning experience.

Students will have the opportunity to develop their knowledge and skills in communications, mathematics, biology, physics and general and organic chemistry so they are well-prepared for the rigours of their next academic program. In addition, the program provides students with the opportunity to learn about potential careers in the health sciences and identify other programs focusing on the biological or chemical sciences that will enable them to achieve their career objectives. As well, the postsecondary credits students earn could be transferred to other health sciences or science-related programs. The curriculum has been designed to meet subject specific entrance requirements. It is expected that graduates of Pre-Health Sciences Pathway to Advanced Diplomas and Degrees programs will be eligible to apply for admission to Advanced Diploma or Degree programs, as well as Certificate and Diploma programs within two broad fields: health sciences, as well as general sciences. (Ministry of Advanced Education and Skills Development, 2016, p.4)

Vocational Learning Outcomes

Vocational Learning Outcomes (VLOs) describe the learning being done at the program level and follow the credentialing framework outlined by the ministry. Each course will outline **Course Learning Objectives (CLOs)** that will be achieved by the end of the course and will relate back to the Vocational Learning Outcomes at varying levels as a program.

The PHS program will cover application to the human body in multiple courses. The core subject will be covered in two semesters of Human Anatomy and two semester of Biological Sciences to maximize student learning over a longer time. Human Anatomy will cover the gross anatomy of the human body and Biological Sciences will look in more depth at the cellular biology and physiology. This allows the student to work on additional foundational skill sets such as quick recall and organization in Human Anatomy and critically applying this knowledge to the physiology of the body. Chemistry is the second level of organization of an organism, like the human body, and Physical Sciences will review scientific laws as they apply to the human body and important health care devices. Mental mathematics concepts are not only required for application in health care for the use of technical equipment and dosage, but also for an overall appreciation of numbers in particular, with respect to safety of the patient when performing quick mental tasks required of a health care professional. The PHS program will cover application to the human body in multiple courses allowing the students to work on additional foundational skill sets such as quick recall and organization and critically applying this knowledge to the physiology of the body.



Vocational Learning Outcomes

A student who is successful in PHS will be able to:

1. Examine biological concepts, processes and systems of the human body, including genetics and epigenetics, as well as the structure, function and properties of the molecules of life, cells, tissues and organ systems in relation to homeostasis, physical development and health.
2. Examine concepts, processes and systems of chemistry, including atomic and molecular structure; quantities in chemical reactions; solutions and solubility; acids and bases; as well as, organic chemistry and biochemistry in relation to health and the human body.
3. Solve numeric problems and interpret data related to health sciences and other science-related fields using mental mathematics, mathematical concepts, including algebra and probability, along with descriptive and inferential statistics.
4. Use health sciences and other science-related language and terminology appropriately to communicate clearly, concisely, and correctly in written, spoken, and visual forms.
5. Prepare a personal strategy and plan for academic, career and professional development in the health sciences or other science-related fields.
6. Investigate health sciences and science-related questions, problems and evidence using the scientific method.
7. Examine fundamental physics laws and concepts and their application to health sciences and other science-related field

Evaluating Vocational Learning Outcomes

To measure the success of each student in meeting the vocational learning outcomes, each college will define expected learning outcomes. These may vary at each college for preparation of programs at that college but the general guidelines for each can be found here: [Pre-Health Sciences Pathway to Advanced Diplomas and Degrees Program Standard, July 2016](#)

2.3 PROGRAM FIT

Video: How to Choose a College Program



One or more interactive elements has been excluded from this version of the text. You can view them online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=296#oembed-1>

Video: “[How to choose a college program](#)” By Fanshawe College [2:01] *Transcript Available.*

Pre-Health Science Program Fit

Pre-Health Science is a two-semester (1 year) Ontario College Certificate program designed to provide students with the core knowledge, skills, and abilities fundamental to academic success in health sciences programs, as well as other science-related programs at the advanced diploma or degree level. PHS is a full time program with 6-7 courses each term and recommended 2-3 hours of study per hour of class, thus student should be prepared to study full time hours (approximately 40 hours per week).

In addition to the course admission requirements for PHS, time management, independent studying, resourcing and asking questions and exam preparation are an asset for success in the program. Refer to the [Fanshawe Career Guide](#) for more information on program fit for the PHS program.

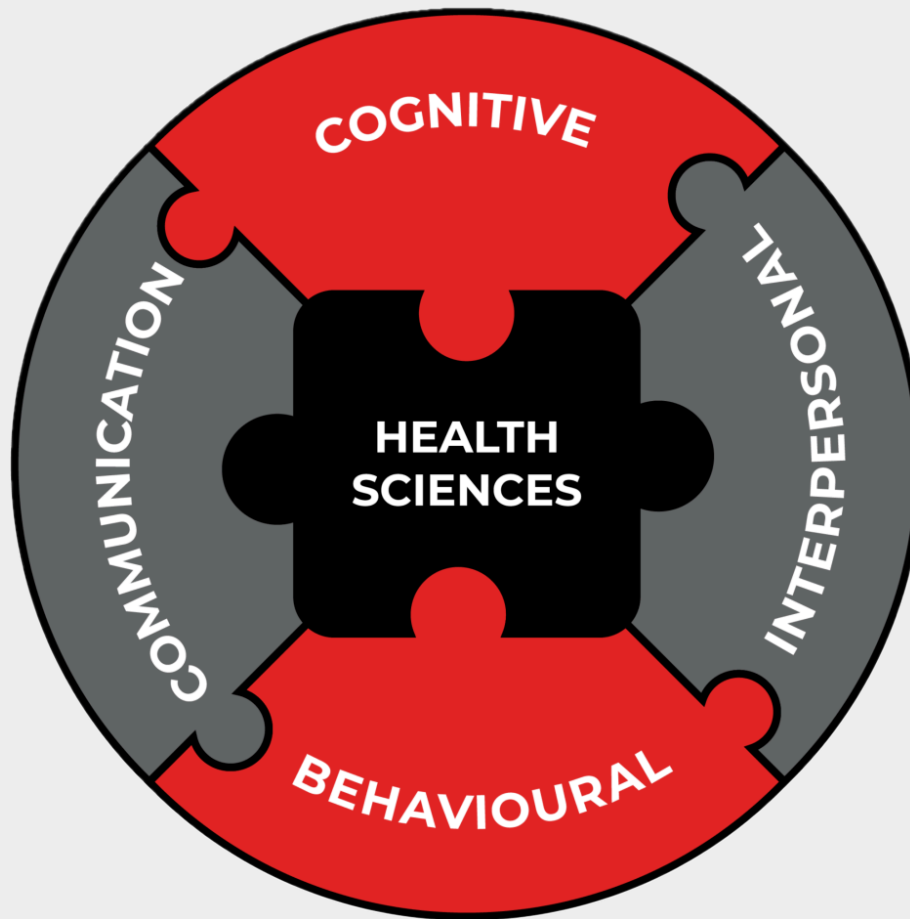


Healthcare Perspective

Skills Required for Success in Healthcare Professions

Admission to the Pre-Health Science program does not guarantee admission in a subsequent year to any College program. Successful completion of the Pre-Health Science program, however, does enable the student to be given additional consideration when applying for one in that Academic year.

Working in the health care profession requires a unique skill set to effectively perform tasks while often working closely with clients/patients and, at times, in stressful situations. Below is a general skill set required for most health care professions and can be categorized into 4 categories: Communication, Interpersonal, Cognitive, and Behavioural.

**Communication:**

- Effective verbal and non-verbal communications skills
- Active listening skills
- Read critically
- Explain complex concepts to others
- Able to communicate professionally with a diverse population

Cognitive:

- Critical thinking and problem-solving skills
- Concentration skills and ability to maintain focus
- Develop critical observations and attention to detail
- Recall information and perform mental calculations in a timely manner
- Confidently make decisions and be assertive
- Gather information, use information resources, and be innovative in identifying solutions

Interpersonal:

- Collaborate in a team setting
- Enjoy working with and caring for people
- Sympathize and empathize with others
- Prepared to work with vulnerable people
- Maintain poise and composure in stressful situations
- Conflict management

Behavioural:

- Adapt to changing environments
- Strong organizational and time management skills
- Detail-oriented
- Ability to work within tight timelines
- Motivated and committed to on-going learning
- Take initiative
- Handle situations involving blood and bodily matter
- Resilience to handle emotional and personal situations
- Conduct work with integrity while abiding by strong ethical principles

Video: Simulation Labs at Fanshawe College



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=296#oembed-2>

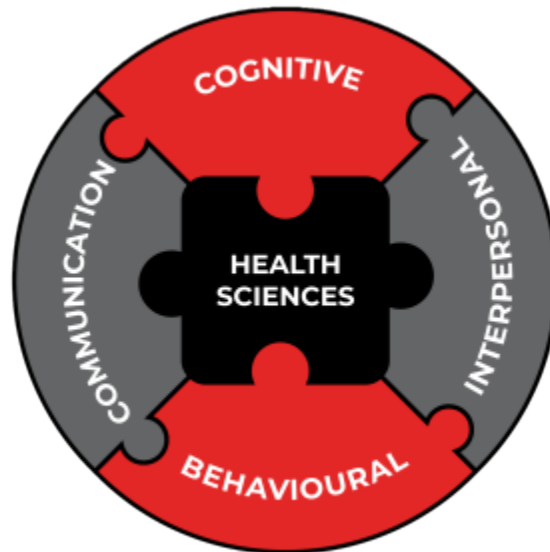
Video: "[Simulation Labs at Fanshawe College](#)" By Fanshawe College [2:06] *Transcript Available.*

2.4 WHY PRE-HEALTH SCIENCE

Skills Development

Developing a foundational skill set for learning is the basis of the program. The PHS program at Fanshawe works with a **Program Advisory Committee (PAC)**, largely consisting of faculty from health career programs and other science programs, together with representation from local high schools. As a result, while the core courses of the program provide the basic content required for admission to health care programs at Fanshawe, the Fanshawe PHS program also aligns program policies and procedures with the School of Health Sciences and embeds program-fit skills for health sciences in the program together with healthcare applications. It is these program-fit skills and healthcare applications that differentiate the PHS program from general science course upgrading programs. The program has been designed with a focus on the: **core knowledge, skills, abilities, and success** in Health Science and other science related programs and the workplace.

The program helps to develop **foundational skills** (also called soft skills) such as goal setting, planning and organizing, self – leadership, and critical thinking, with a correlation of biomedical concepts between different scientific disciplines. This learning is embedded in a cocurricular (full time) delivery that not only provides a solid foundation for science programs but also for students who, through goal setting, choose a different pathway in post-secondary education and in the workplace.



Unlike high school or other science upgrading programs, where many courses can be taken as stand-alone courses, the PHS program is **cocurricular** which means material taught in one class will provide a basis for knowledge in other classes in the same term, as well as the base knowledge required for the second term. In this way, the PHS program helps to develop the foundational skill of critical thinking, which is required to link concepts between multiple disciplines as would be required in a health care setting. As a result PHS graduates have a high success rate in health career programs and a high number of students who do not choose health are successful in other programs at Fanshawe.

Throughout the PHS program, an emphasis will be placed on developing the ability to work with others. As a healthcare professional, one needs to be able to work alongside colleagues and treat individuals from diverse populations. As such, our students will be encouraged and expected to work well with others while exhibiting respect and compassion regardless of age, ancestry, place of

origin, colour, ethnic origin, citizenship, creed (religion), sex, sexual orientation, same sex partnership status, gender identity, gender expression, disability, age, marital status, family status (parent-child relationship) the receipt of public assistance (in accommodation only), and record of offences (provincial offences, pardoned federal offences, in employment only).

2.5 KNOWLEDGE CHECK



Reflective Practice

What are your top 2 health career program goals and why?

What 3 skills do you feel you need to develop to better prepare for that program?

How will the Pre-Health Science (PHS) program help you with your career goals?



Applying Your Knowledge



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=306#h5p-10>



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=306#h5p-11>



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Glossary

Co-curricular

Course Learning Objectives (CLOs)

Foundational Skills

Pre-Health Sciences Pathway to Advanced Diplomas and Degrees

Program Advisory Committee (PAC)

Vocational Learning Outcomes (VLOs)

CHAPTER 3: JOB SKILLS FOR THE FUTURE

Chapter Outline

[3.0 Introduction](#)

[3.1 Health Perspective](#)

[3.2 Seven Job Skills](#)

[3.3 Global Citizenship](#)

[3.4 Self-Directed Learning](#)

[3.5 Social Intelligence](#)

[3.6 Resilience](#)

[3.7 Novel and Adaptive Thinking](#)

[3.8 Implementation Skills](#)

[3.9 Complex Problem Solving](#)

[3.10 Knowledge Check](#)

3.0 INTRODUCTION

Learning Objectives

After reading this chapter, you should be able to do the following:

- Define the 7 Job Skills for the Future
- Identify personal skills and knowledge as it pertains to Job Skills for the Future
- Relate the 3 Job Skills emphasized in the Pre-Health Science program to knowledge and skills gained while in the program

3.1 HEALTH PERSPECTIVE



Melanie Mitchell Sparkes, BScN Year 4 Student

Pre-Health Science Graduate



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/prehealthpathways/?p=25#oembed-1>

Current Work	OER Design Studio, Fanshawe College. Planning to apply to hospitals in Hamilton once I finish school in December 2023.
Skills You Use Professionally	Problem solving, critical thinking, time management, collaboration, resilience.
Favourite thing about your job	I get to help students save millions of dollars in textbook costs. When I work as a nurse, I look forward to helping my patients achieve overall health and wellbeing.
Credentials/Past professional Experiences	I worked with L'Arche Stratford. It's a community that helps people with and without disabilities collectively live, work and learn together. This is what initially interested me in healthcare before applying to Pre-Health Science.
One thing you would tell your former self	Don't give up. You might have to take a different route than other people, but that will make you stronger than you know. It will give you more life experiences and skills that will help you in the nursing field later.

3.2 SEVEN JOB SKILLS

Going Forward

Fanshawe College has identified 7 **Job Skills for the Future** that all programs in the college embed into their curriculum. These Job Skills are generic to all industries and competence in these Job Skills is regarded as required for those seeking to build successful careers. It is important that soon-to-be-graduated students can identify these skills in themselves and understand how they can exhibit competence in these skills when meeting with potential employers. To this end, in this chapter, each of the Job Skills is defined.

All the 7 Job Skills for the Future are woven into the curriculum of Fanshawe College's Pre-Health Science program. Pre-Health Science will cover each job skill listed with **specific focus on self-directed learning, resilience, and complex problem solving**. These 3 skills are specific as foundational learning skills in preparing for the high mental and physical stress of health care professions.



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3.3 GLOBAL CITIZENSHIP



[“Silex Global Citizenship”](#) © Fanshawe College

Create an awareness of the wider world and your place in it.

Global citizenship is having a worldview grounded in civic responsibility and ethics. Global citizens think both on a structural level (e.g., how does my consumption affect people around the world?) and an individual level (e.g., how should I greet my international peers in a way appropriate to their cultural norms?).

A global citizen will learn from and with others who are different from themselves. They will examine ideas such as privilege and relative positions of power. They are committed to social justice and to breaking down global inequities.



Excelling in Global Citizenship as a Job Skill means:

You can:

- Think critically within a larger worldview
- Reflect on political, cultural, and historical influences on yourself and others
- Treat people as individuals while respecting their culture and beliefs

Others see you as:

- Committed to civic responsibility & social justice
- Respecting cultural norms of others
- Learning from people with diverse backgrounds and beliefs

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3.4 SELF-DIRECTED LEARNING



[“Silex Self-Directed Learning”](#) © Fanshawe College

Identify and achieve personal learning goals

Being a **self-directed learner** is being autonomous, organized, and self-disciplined. They are able to communicate effectively, accept constructive feedback, and engage in self-evaluation and self-reflection to learn. Self-directed learners are lifelong learners as they continue to grow and adapt to complex social and technological changes throughout their careers. They are self-motivated.



Excelling in Self-directed Learning as a Job Skill means:

You can:

- Take initiative to learn
- Work towards solving real-world problems trying to find efficient solutions
- Adapt and learn as needed
- Not fear change
- Be accountable
- Be punctual

Others see you as:

- Acting without being told to
- Assessing your own abilities – strengths and weaknesses
- Adapting to new technology
- A motivated/driven person



Pre-Health Perspective

In PHS you will have many opportunities to develop the Job Skill of self-directed learning. Below are just two examples of times you will be required to do self-directed learning:

- Blended courses will have built-in hour(s) where you complete tasks and evaluations on your own to meet a set

deadline.

- Students will use the Mathematics Open Educational Resource to work on their self-directed learning skills by using the practice problems to prepare for class and evaluations.



As a Registered Nurse in the Neonatal Intensive Care Unit, I am required to think critically and quickly assess situations involving a neonate. Infant conditions can change rapidly without warning which requires me to be a self-directed learner. It is of upmost important that I am motivated to continue increasing my knowledge base. Technology is ever-evolving and requires continuous preparation to respond to patient situations while exhibiting clinical competence.

Ewelina Stoyanovich, RN, PhD (Student), MN, BScN, BA

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3.5 SOCIAL INTELLIGENCE



“Silex Social Intelligence” © Fanshawe College

Build and nurture mutually beneficial relationships

Social Intelligence is being able to interact positively with others, building strong healthy relationships, and thriving in social environments. It is having the self-awareness to effectively apply the knowledge of social dynamics and team building to create positive outcomes for everyone involved. Individuals that demonstrate the skill of Social Intelligence have excellent communication skills and are empathetic. We often refer to Social Intelligence as ‘people skills’ or ‘interpersonal skills’.



Excelling in Social Intelligence as a Job Skill means:

You:

- Have a passion for working with others towards positive outcomes
- Are curious about the world and the people in it
- Care about others
- Have good emotional control (Emotional Intelligence)
- Listen with intent and exhibit strong conversational skills

Others see you as:

- Having respect for diverse opinions, values, belief systems and the contributions of others
- Having a constantly renewed sense of curiosity and wonder
- Having a willingness towards helping others
- A good listener and communicator

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3.6 RESILIENCE



“Silex Resilience” © Fanshawe College

Succeed through adversity

Resilience is the ability to thrive while overcoming obstacles. It is the ability to accept difficult situations and adapt in order to move forward. An individual with Resilience skill is capable of coping with stress, emotional upheaval, and pressure. They have the mindset that their skills and abilities are dynamic, not fixed, allowing them to work through hard times to a better future.



Excelling in Resilience as a Job Skill means:

You are:

- Self-reliant
- Responsible
- Self-Driven
- Mature
- Someone who will admit their mistakes and own their problems
- Positive/optimistic
- Able to work through difficult situations to find positive solutions

Others see that you:

- Earn respect from your peers and colleagues
- Are regarded as mature
- Stay calm under pressure
- Know when to ask for help
- Find answers
- Are successful



In PHS you will have many opportunities to develop the Job Skill of Resilience. Below are just two examples of times you will work on resilience in the PHS program:

- Due to the rigour of the program, time-management skills required to be successful, as students will be handling a large volume of lectures, quizzes, tests, online assignments, and exams.
- Level one courses are all pre-requisites for level two. Students must recognize areas for improvement and not give up, but use the many resources in the program, such as tutorials, office hours, and additional practice work, as well as the College facilities such as the Learning Centre and study groups.



I once read a quote from an Emergency Room physician who referred to Respiratory Therapists as; “the silent heroes during a crisis”, and couldn’t help but agree. To me a pivotal trait of a good Respiratory Therapist is keeping a cool head in tense situations.

Belinda Gougoulias: RRT, Infection Control Professional

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3.7 NOVEL AND ADAPTIVE THINKING



[“Silex Novel and Adaptive Thinking”](#) © Fanshawe College

Find innovative, creative, and unconventional relationships between things or concepts

Being a **Novel and Adaptive Thinker** means being creative in analysis and solutions. Novel and adaptive thinkers address complex and sometimes controversial issues with a humble and open-minded attitude. They think ‘outside the box’ in response to unique or unexpected situations, attempting to find unique but effective answers. They thrive when challenged and are willing to adapt or change a solution when circumstances change, or other options present themselves.



Excelling in Novel and Adaptive Thinking as a Job Skill means:

You are good at:

- Synthesizing data and information
- Analyzing
- Evaluating
- Making sound, ethical decisions
- Thinking innovatively and creatively
- Not getting too attached to outcomes

Others see you that have the ability to:

- Apply a logical, systematic approach to solving problems
- Create solutions that balance facts and feelings
- Inspire increased trust from others

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3.8 IMPLEMENTATION SKILLS



[“Silex Implementation Skills”](#) © Fanshawe College

Manage projects to achieve key milestones and outcomes

Excelling in **Implementation skills** means an individual has a “get ‘er done” attitude. They can design, manage, and execute projects, initiatives or plans in an organized, timely fashion. They can guide a project from idea to completion while managing themselves and others effectively. They are action orientated and enjoy a ‘hands-on approach’.



Excelling in Implementation Skills as a Job Skill means:

You:

- Think and plan ahead
- Manage logistics easily
- Apply logic & common sense
- Have superb organizational skills
- Demonstrate a high level of personal responsibility
- Enjoy working with templates and systems
- Have the capacity to develop and implement 'systems' when needed

Others see that you can:

- Roll with the punches
- Easily act on new information
- Have a 'Plan B' (and a 'Plan C' and 'D'...)
- See both the big picture & also the minute details
- Play a strong role as a DOER, rather than a passive observer
- Turn problems into 'plot twists'

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3.9 COMPLEX PROBLEM SOLVING



[“Silex Complex Problem Solving”](#) © Fanshawe College

Find solutions to real-world problems

Complex Problem Solving is the skill of applying a method to a problem, often not seen before, to obtain a satisfactory solution. It requires a creative combination of knowledge and strategies to arrive at an answer. Rapid technological change, the increasingly global exchange of ideas, and the proliferation of easy-to-access information – some of which is decidedly unreliable – all contribute greater complexity to the problems that they will need to solve.



Excelling in Complex Problem Solving as a Job Skill means:

You are:

- Engaged in *'big picture'* thinking
- Flexible & adaptable to change
- Creative
- Highly detail-oriented
- Someone who sees patterns
- Someone who works efficiently

Others see you:

- Demonstrate self-reliance
- Achieve your dreams and ambitions
- Are capable of higher-order thinking (not just memorizing facts, but demonstrating the ability to deeply understand, apply, analyze, and evaluate information)
- Achieve increased status & responsibility at school or work
- Create solutions that balance the facts, but with new insight



Complex Problem Solving and Pre-Health Science

In PHS you will have many opportunities to develop the Job Skill of Complex Problem Solving. Below are just two examples of times you will work on this in the PHS program:

- The cocurricular delivery of the program means the concepts in learned in one class will be used and applied in other courses.
- Biomedical applications are used throughout the program using 'systems-based' problems and/or 'clinical problems' from different perspectives in different courses. A cumulative approach is used in problem solving assignments in second term.



A Medical Radiation Technologist (MRT) is required to be quick thinking in rapidly changing emergency situations by analyzing the patient's anatomy and abilities, the equipment's capabilities, and the best imaging techniques to obtain clear and accurate images for the medical team.

Caleb Scott, *MSC, MRT(R)*

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3.10 KNOWLEDGE CHECK



Applying Your Knowledge



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=54#h5p-1>

Glossary

Complex Problem Solving

Global Citizenship

Implementation Skills

Job Skills for the Future

Novel and Adaptive Thinker

Resilience

Self-Directed Learner

Social Intelligence

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CHAPTER 4: PLANNING YOUR CAREER

Chapter Outline

[4.0 Introduction](#)

[4.1 VARK and Learning Preferences](#)

[4.2 Myers Briggs Personality Assessment](#)

[4.3 Other Personality Self-Assessments](#)

[4.4 Career Connection](#)

[4.5 Knowledge Check](#)

4.0 INTRODUCTION

Learning Objectives

After reading this chapter, you should be able to do the following:

- Describe the stages of career development .
- Reflect upon personal aptitudes, skills, interests, values, and work-style needs and preferences.

4.1 VARK AND LEARNING PREFERENCES

VARK Learning Preferences

A popular approach to learning styles is called the VARK approach which focuses on learning through different senses (**V**isual, **A**ural, **R**eading/Writing, and **K**inesthetic):

- *rgb*] 1.0, 0.0, 0.0 **V**isual learners prefer images, charts, maps and diagrams.
- *rgb*] 1.0, 0.0, 0.0 **A**ural learners learn better by listening.
- *rgb*] 1.0, 0.0, 0.0 **R**eading/writing learners learn better through written language.
- *rgb*] 1.0, 0.0, 0.0 **K**inesthetic learners learn through doing, practicing, and acting.

Once you discover the differences in learning styles and how they pertain to you, it may help you to shed light on your own learning habits and preferences, and give you ideas for incorporating other strategies.

You shouldn't conclude that you are one type of learner or another and that you should just focus your learning on using your preferred learning style. It can be hard to break study habits which have formed over many years. However, by incorporating different modalities in your learning, you are more likely to remember and understand.

Think of it as having a toolbox of ways to think and learn, and for each task, ask yourself which tool is the best one for the job.

Knowing and Taking Advantage of Learning Styles in a Way That Works for You

It's good to understand learning styles; however, just knowing your preference doesn't automatically provide a solution for how to do your best in your courses. For example, although you may be a kinesthetic learner, you'll likely still have textbook assignments (reading) as well as lecture classes (listening). All students need to adapt to other ways of learning.

The following sections look at the key ways in which learning occurs in college classes and offer some suggestions about how to adapt your strengths for success.

Visual Learning Preference

A “*seeing*” learner learns more effectively through seeing than through reading or listening. Some courses include demonstrations and physical processes that can be observed. If you are a visual learner, work on developing your reading and listening skills, too, because you will need to learn in these ways as well.

If you had a high **V** score, you may prefer to learn new things by reviewing **visual images** (graphs, charts, maps):

- Sit in class where you can see PowerPoint slides and other visual presentations most clearly.
- Pay special attention to your textbooks' illustrations and diagrams which will further help you understand the written ideas



and information.

- Use a visual approach in your class notes, as described in our chapter on Note Taking.
- If your instructor or textbook doesn't have a lot of visuals to help you understand and recall information and ideas, try to imagine how you would present this information visually to others if you were giving a class presentation. In your notes, create sketches for a PowerPoint slideshow capturing the highlights of the material.
- Study with other students who may learn better by reading or listening, and watch how they explain the material.

Auditory Learning Preference

If you had a high **A** score, you prefer to learn new things *by listening*. Since your professors are often providing information through lecture formats, whether live or recorded, you are able to process this information to produce accurate results in your work.

- Sit up front in lecture classes where you can see and hear the instructor better.
- Ask if you will have access to recorded lectures and listen to them while commuting or doing laundry.
- Study with other students and listen to what they say about the course material. Hearing them talk from their class notes may be more helpful than reviewing your own written notes.
- When studying, read your notes aloud or record your own summary of a lesson.
- Review previous tests by reading the questions aloud and speaking your answers. If a section in your textbook seems confusing, read it aloud.



Read/Write Learning Preference

If you had a high **R** score, you may prefer to learn new things by reviewing *reading* (and writing).

Reading skills are critically important for students. Not only are you reading this book to get important information, you will need to read assignment instructions to know what is expected of you. Although many instructors may cover some of the textbook's content in lectures or class discussions, students cannot skip the readings and instructions for assignments and expect to do well.

If your personal learning preference is Reading—that is, if you learn well by sitting reading the written word—then you will likely not have difficulty with your university reading. Here are some tips to help maximize your learning:

- Underline and highlight key ideas when reading.
- Take good notes on your reading, using your own words.
- Write descriptions that summarize information presented in nonverbal modes, such as through charts and graphs.
- Do all optional and supplemental readings.
- Take good notes in class, as *you may remember more from your written words* than from the instructor's spoken words.
- If a class involves significant non-reading learning, such as learning hands-on physical processes, study with other students who



are kinesthetic or “doing” learners.

Kinesthetic Learning Preference (Learning by Doing)

People who learn best by doing are often attracted to careers with a strong physical or hands-on component, which can vary from athletics to technologies and trades. But these students may need to use other learning skills as well. Here are some tips to help maximize your learning related to doing:

If you had a high K score, you may prefer to learn new things by jumping in a doing them (kinesthetic learner):

- Form a study group with other students and talk with others about the course topics.
- Do something with the information you are reading so that you connect the idea to how it is applied.
- Take advantage of your instructors’ office hours to help clarify your understanding after reading assignments.
- Try to engage all your senses when learning. Even when reading about something, try to imagine what it would feel like if you touched it, how it might smell, how you could physically manipulate it, and so forth.
- Think about how you yourself would teach the topic you are presently learning. What visuals could you make to demonstrate the idea or information? Imagine a class lecture as a train of boxcars and think about what things you would put in those cars to represent the lecture topics.
- When it becomes difficult to concentrate when reading while sitting in a quiet place, get up and move around while studying; make gestures as you read aloud.
- Use your hands to create a range of study aids rather than just taking notes: make charts, posters, flash cards, and so on.
- When taking notes, sketch familiar shapes around words and phrases to help you remember them. Try to associate abstract ideas with concrete examples.
- The act of writing—handwriting more than typing at a keyboard—may increase retention; write key things several times.
- Study with other students who may learn better by reading or listening.



Feeling

Feeling learners focus on the emotional side of information and learn through personal connections. Too often they may feel that a textbook or a class is “dry” or “boring” if it focuses exclusively on written information. In addition to improving their reading and listening skills, students with this style can enrich their learning by focusing on what they and others feel about the information and ideas being learned. Here are some tips to help maximize your learning related to feeling:

- Try to establish an emotional connection with the topic you are learning. In a history class, for example, imagine yourself as someone living in the period you are studying: what would you feel about the forces at work in your life? In a science class, think about what the implications of a particular scientific principle or discovery might mean for you as a person or how you yourself might have felt if you had been the scientist making that discovery.
- Talk with your instructor during office hours. Express your enthusiasm and share your feelings about the subject. Even instructors who may seem “dry” in a lecture class often share their feelings toward their subject in conversation.
- Do supplemental readings or look for documentaries you can watch about the people involved in a subject you’re studying.

For example, reading an online biographical sketch of financial scam artist, may open your eyes to a side of the subject you hadn't seen before and increase your learning.

- Study with other students who may learn better by reading or listening. Talk with them in a personal way about what the material means to them. Try teaching them about the topic while explaining your feelings about it.
- Also try the strategies listed for the “doing” learning style.

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4.2 MYERS BRIGGS PERSONALITY ASSESSMENT



Getting Started

As an introduction into the Myers-Briggs Personality Types, please click the link to take the following quiz:

[Free Online Self-Assessment of Your Myers-Briggs Personality Type](#)

Myers-Briggs Personality Testing

Much like learning styles, there have been a number of theories surrounding the idea that different personality types may prefer different kinds of learning. Understanding how personality traits and learning styles are categorized can be useful in making decisions and choices for your own learning activities. It can be interesting to review how personality styles may impact your ability to learn.

Whether you put any value on these theories, it's important to recognize that employers may use personality assessments in the hiring process. For example, an organization may identify a lack of strong leadership in its marketing department. Everyone is good at doing the tasks that need to get done, but no one is willing to take charge.

When reviewing a series of qualified applicants, a personality assessment may be used to identify which candidates have a leadership personality style before offering anyone an interview.

What knowing about personality traits and learning can do for you is to help you be aware and informed about how these affect you so you can deal with them directly.

Explaining Myers-Briggs Results

Extroverted (E) vs. Introverted (I): In the Myers-Briggs system, the traits of Extroverted and Introverted are somewhat different from the more common interpretations of the two words. The definition is more about an individual's attitude, interests, and motivation. The extrovert is primarily motivated by the outside world and social interaction, while the introvert is often more motivated by things that are internal to them—things like their own interests.

Intuition (N) vs. Sensing (S): This personality trait is classified as a preference toward one way of perceiving or

another. It is concerned with how people tend to arrive at conclusions. A person on the intuitive end of the spectrum often perceives things in broader categories. A part of their process for “knowing things” is internal and is often described as *having a hunch* or *a gut feeling*. This is opposed to the preferred method of a sensing person, who often looks to direct observation as a means of perception. They prefer to arrive at a conclusion by details and facts, or by testing something with their senses.

Feeling (F) vs. Thinking (T): This trait is considered a decision-making process over the information gathered through the perception (N versus S). People that find themselves more on the Feeling end of the spectrum tend to respond based on their feelings and empathy. Examples of this would be conclusions about what is good versus bad or right versus wrong based on how they feel things should be. The Thinking person, on the other hand, arrives at opinions based on reason and logic. For them, feeling has little to do with it.

Judging (J) vs. Perceiving (P): This category can be thought of as a personal preference for using either the Feeling versus Thinking (decision-making) or the Intuition versus Sensing (perceiving) when forming opinions about the outside world. A person that leans toward the Judging side of the spectrum approaches things in a structured way—usually using Sensing and Thinking traits. The Perceiving person often thinks of structure as somewhat inhibiting. They tend to make more use of Intuition and Feeling in their approach to life.

The Impact of Personality Styles on Learning

To find out their own personality traits and learning styles, a person takes an approved Myers-Briggs test, which consists of a series of questions that help pinpoint their preferences. These preferences are then arranged in order to build a profile using each of the four categories.

For example, a person that answered questions in a way that favoured Extroverted tendencies along with a preference toward Sensing, Thinking, and Judging would be designated as ESTJ personality type. Another person that tended more toward answers that aligned with Intuitive traits than Sensing traits would fall into the ENTJ category.

Table: Personality Types

ESTJ	ISTJ	ENTJ	INTJ
ESTP	ISTP	ENTP	INTP
ESFJ	ISFJ	ENFJ	INFJ
ESFP	ISFP	ENFP	INFP

As with other learning style models, Myers-Briggs has received a good deal of criticism. Additionally, the claim that each person has a permanent and unwavering preference towards personality traits and learning styles has not turned out to be as concrete as it was once thought. This has been demonstrated by people taking tests like the Myers-Briggs a few weeks apart and getting different results based on their personal preferences at that time.

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4.3 OTHER PERSONALITY SELF-ASSESSMENTS

There are many organizations who hire specialized companies to provide personalized assessments to employees prior to hiring or while employed. The cost for these can vary widely depending on how many people are being evaluated and how the results will be communicated to the organization.

As mentioned earlier in the text, while there is value in knowing about these types of assessment and reflecting on how you can use this information to better inform your own development, these self assessments only reflect your current thoughts, beliefs, and abilities at one particular point in time.

As we continue to grow, change and learn it would be impossible to say that any one person has a fixed and unwavering preference towards personality traits and learning styles.

Free Personality Tests

Feel free to take any of the following tests below to explore the different self-assessment options out there:

- [Big Five Personality Test](#)
- [True Colours](#)
- [Locus of Control](#)
- [Empathizing/Sympathizing](#)
- [Online Self-Assessment](#)

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4.4 CAREER CONNECTION

Career Connection

“Learning about reflection as a practice can help you improve your self-reflection abilities, which may help you improve your workplace performance”

(Indeed Editorial Team, 2022, para. 1)

Student Perspective: LinkedIn Profiles Lead to Jobs

I'm Kokilavani Thiyagarajan, and I came as an international student from Chennai, India. I'm an Architect and Urban Planner by profession. I completed my post graduate diploma in Geographic Information Systems (GIS) at Fanshawe and graduated from that program at Fanshawe in August 2022 and then enrolled in Business Fundamentals here for a second program in January of 2023.

I want to offer my knowledge on the value of using a LinkedIn profile effectively, particularly if you are an international student studying in Canada or any other country.

As part of my GIS program, we had the opportunity to apply for a co-op at our level 3. Even though it was not a mandatory level, I was keen to secure a co-op position in Canada. I strongly believed it would help me to launch my professional career in Canada. With the work experience I gained in India, I can confidently say that I'm fairly proficient with GIS technical skills. It is crucial to have strong professional networking skills to demonstrate that I possess the necessary qualifications for a job opportunity. I have a strong conviction that setting up a LinkedIn profile would be an excellent place to start.

Secondly, it is important to establish a strong connection with the help of the profile we created. I personally, did this. Hopefully, it works for you too. When I was still enrolled in my GIS school, I started to develop my LinkedIn profile from a basic to a professional level. I started to upload the academic works I was doing in my school consistently, updated all the skills that I'm good at, and also filled in my previous work experience details to indicate what I was doing before this program. As a sample, I hyperlinked the organization websites and renowned projects I was involved in. So, by the time I applied for my co-op, I had a LinkedIn profile that fully reflected my skills and abilities.

For the next step, I did some research on what organizations I wanted to work with and started to like and follow them on LinkedIn to show my interest. I decided to monitor all the city development authorities in the province of Ontario since the majority of my prior project experiences were with city development authorities and local governments. To name a few I followed the official website of the City of London and the City of Brampton, it helped

me to understand what they are up to, what sort of projects they are working on, and what job positions are currently open at their organization.

At this point, you should also make sure to maintain contact with all of your instructors, seniors, and peers from the same university, other universities in the province, and relevant courses. You must also regularly check your LinkedIn mobile application; I advise doing so at least twice daily, preferably in the morning and evening or whenever you feel like monitoring your other social media accounts.

Finally, reaching out to potential employers and applying for jobs posted on LinkedIn and other job sites is challenging. In my case, I applied to more than 100 organizations for my co-op position. I got replies from half a dozen of them. I did some interviews and I got selected for a Planning-GIS student position at the City of Kingston. LinkedIn has really helped me to secure a position in a city development authority where I wanted to focus.

As a key takeaway point, I strongly suggest you invest your time in developing social networking network skills that help you reach your dream workplace quickly. Just remember we are all new to your country, and it is important to be focused and self-directed to improve our learning skills through social-Intelligence.

Kokilavani Thiyagarajan, *Fanshawe College*



Interview Questions

Below are some common questions asked during interviews. Being able to assess your strengths, recognize opportunities to improve, talk about actions you would take and reflect on what you learned will help you develop good examples to use when faced with these types of questions.

1. What is your biggest strength that you would bring to our organization and how would it help you be successful in your first 6 months on the job?
2. We have a formal training program for all new employees that will help you understand our formal policies and rules. If you joined our team, how would you go about getting to learn more about the workplace culture here at Company X?
3. Tell me about a time when you were unsuccessful in completing a task. What was the situation and what did you learn that you would do differently next time?
4. If I were to ask someone who you recently worked with, what would they say is your biggest weakness?

4.5 KNOWLEDGE CHECK

Glossary

Aural Learning Preference

Extrovert

Feeling Trait

Introvert

Intuitive Trait

Judging Trait

Kinesthetic

Myers Briggs

Perceiving Trait

Read/Write Learning Preference

Sensing Trait

Thinking Trait

VARK

Visual Learning Preference

CHAPTER 5: PATHWAYS

Chapter Outline

[5.0 Introduction](#)

[5.1 Pre-Health Science](#)

[5.2 Program: Community Pharmacy Assistant](#)

[5.3 Program: Dental Assisting](#)

[5.4 Program: Dental Hygiene](#)

[5.5 Program: Fitness and Health Promotion](#)

[5.6 Program: Massage Therapy Accelerated](#)

[5.7 Program: Medical Radiation Technology](#)

[5.8 Program: Paramedic](#)

[5.9 Program: Pharmacy Technician](#)

[5.10 Program: Respiratory Therapy](#)

[5.11 School of Nursing](#)

[5.12 Program: Bachelor of Nursing](#)

[5.13 Program: Practical Nursing](#)

[5.14 Other Program Pathways](#)

5.0 INTRODUCTION

Learning Objectives

After reading this chapter, you should be able to do the following:

- Examine the health career programs at Fanshawe College.
- Identify alternate pathways from the PHS program.
- Recognize the skill sets recommended as preparation for specific health career programs and the industry.
- Identify the application requirements for specific health career programs.

5.1 PRE-HEALTH SCIENCE

Pre-Health Science (PHS) is the preferred designated preparatory program for admission to career programs in the School of Health Sciences and School of Nursing.

Admission to the Pre-Health Science (PHS) program does not guarantee admission in a subsequent year to any College program. Successful completion of the Pre-Health Science program, however, does enable the student to be given additional consideration when applying for one in that Academic year and in some programs students may apply for advance standing for courses that meet minimum conditions for exemption. This chapter will examine some of the health programs at Fanshawe College to help students make an informed decision based on their goals and best program fit. Pre-Health Science provides students with an opportunity to explore their own study habits, goals and interests in science. For some this may mean choosing a career path that is not in Health Sciences. In addition to core course content, PHS provides students with a foundational skill set for success in further academic studies regardless of the content. As a result, PHS graduates have a high success in many programs, this chapter will outline a sample of those pathway.

5.2 PROGRAM: COMMUNITY PHARMACY ASSISTANT

A career as a community pharmacy assistant takes attention to detail, a knack for problem solving, wide-ranging technical knowledge and solid interpersonal skills. You'll work under the direction of a registered pharmacist or pharmacy technician to contribute to the success of a pharmacy. If you're interested in a satisfying career that makes a difference, the Community Pharmacy Assistant program will get you on your way to career success (Fanshawe College, n.d.-a, para. 1).

Video: Community Pharmacy Assistant



One or more interactive elements has been excluded from this version of the text. You can view them online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1022#oembed-1>

Video: "[Community Pharmacy Assistant](#)" by Fanshawe College [1:00] *Transcript Available.*

About the Profession

Pharmacy assistants are responsible for technical concepts, creative problem-solving strategies, and require excellent interpersonal skills to support the expanding scope of both pharmacy technicians and pharmacists. Pharmacy assistants excel in prescription processing, third-party adjudication (dispensary reimbursements), managing inventory, compounding non-sterile products, working with various forms of pharmacy automation, and assisting customers with products sold in a community pharmacy (Fanshawe College, n.d.).

Professional Links

More information on the profession and associations can be found in the following links:



[Ontario College of Pharmacists](#)

[National Association of Pharmacy Regulatory Authorities](#)

[Canadian Association of Pharmacy Technicians](#)

[Ontario Pharmacists Association](#)



Program Fit

What personal qualities should someone interested in this career have?

- Perform in an ethical manner in working with peers, faculty, health care staff, patients and customers
- Able to empathize with others
- The ability to remain calm and handle emergencies
- The ability to pay close attention to detail
- Able to make decisions quickly and request assistance/guidance from others as needed
- Able to multitask
- A willingness to keep up to date with new products and practices
- Cooperative/respectful to all members of the health care team
- Able to take charge in a situation and provide direction to others
- Able to work as a member of a team
- Active listening
- Provide feedback to people
- Enjoy working with and caring for people
- Prepared to work with people in vulnerable situations
- Able to communicate with people across the lifespan
- Strong time management/prioritization skills

Places you may find yourself employed include

- Community pharmacies (Shopper's Drug Mart, Pharmasave, Rexall), long term care pharmacies, and specialty compounding/drug preparation pharmacies.

Typical working conditions for this kind of work:

- May be required to work shifts including evenings, weekends, and holidays

Tasks a graduate may do in the workplace:

- Assist a Pharmacist and/or Pharmacy Technician in the interpreting, packaging, dispensing and labelling of prescriptions.
- Perform data base entry, third party billing, inventory control, marketing plan implementation and cash handling processes
- Compound non-sterile preparations under the supervision of a Pharmacist

Helpful links for further research into this Fanshawe College program and career opportunity

Fanshawe's library has prepared a [subject guide](#) for current students in this program. You may find the links and information provided very useful in learning more about this career.

Opportunities for further development or education:

Graduates may be qualified to apply for [Fanshawe College graduate certificates](#).

Graduates may be qualified to apply for the [Pharmacy Technician Program](#) at Fanshawe College.

Pharmacy Technician graduates have opportunities to [transfer credits to a university degree program](#).

Becoming a Community Pharmacy Assistant

The Community Pharmacy Assistant program at Fanshawe College is a 2 semester, 30 week program starting in September each year and considered to be a moderate workload with 80 percent theory and 20 percent practice.

Level One:

7 courses in the first semester

2 hours of study/assignments required for each hour in class

18 hours of class

It is expected that you will participate in out of class activities.

Level Two:

4 courses in the second semester

2 hours of study/assignments required for each hour in class

13 hours of class/week commitment

150 hours of community placement

The courses you would take at Fanshawe can be found on the [Community Pharmacy Assistant](#) page.

Opportunities for further development or education

- Graduates may be qualified to apply for [Fanshawe College graduate certificates](#).
- Graduates may be qualified to apply for the [Pharmacy Technician program](#) at Fanshawe College.
- Pharmacy Technician graduates have opportunities to [transfer credits to a university degree program](#).

[Fanshawe Pathfinder: Community Pharmacy Assistant](#) © Fanshawe College used with permission, All Rights Reserved

Admission Requirements:

[Community Pharmacy Assistant Admission Requirements](#)

Other programs can be found at [Pathway to Pharmacy Technician](#)

PHS Graduates:

Graduates of the PHS2 Pre Health Science Pathways to Advanced Diplomas and Degrees with a minimum GPA of 3.0 may apply for advanced standing to have the course Personal and Working Relationships waived. Refer to program coordinator at start of program for eligibility.

5.3 PROGRAM: DENTAL ASSISTING

A career as a level II dental assistant requires dynamic technical and interpersonal skills to provide patient care and chair-side support assisting dentists before, during and after a wide variety of procedures including fillings, crowns and extractions. If you're looking for a career providing dependable, patient centred care, our dental assisting program is for you! (Fanshawe College, n.d.-b, para. 1).

Video: Dental Assisting (Levels I and II)



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1131#oembed-1>

Video: “[Dental Assisting \(Levels I and II\)](#)” by Fanshawe College [1:00] *Transcript Available.*

About the Profession

A dental assistant works with the dentist and hygienist to assist a variety tasks including before and after care procedures with the patient. More detailed information on the role of the dental assistant can be found on the [Career in Dental Assisting](#) page.

Places you may find yourself employed include

Private practice dental offices, community health agencies, hospital clinics, dental insurance companies, dental and denture labs, or dental supply companies.



Program Fit

What personal qualities should someone interested in this career have?

- Ability to accept & apply constructive feedback
- Able to make decisions/problem solve quickly and confidently
- Willing to handle situations involving blood and oral debris
- Good coping skills
- Ability to put patients at ease
- Steadiness, the ability to remain calm under pressure and in emergencies
- Able to pay strong attention to detail
- Maintain honesty & integrity
- Ability to accept & comply with industry (professional) standards & expectations – i.e. wear uniform, follow rules
- Able to cope in busy/changing environments
- Ability to co-operate and work as part of a team
- Ability to multi-task
- Time management & personal life organization
- Self-directed, take initiative

Typical working conditions for this kind of work:

- Work in an office environment
- May work full or part time; evening or shift work may be required
- Dental assistants work with small instruments in the mouth, fine motor skills and dexterity are needed
- Working in close proximity to members of the public

Tasks a graduate may do in the workplace

As chairside assistants, dental assistants:

- Receive and prepare patients for treatment
- Sterilize, prepare and set out dental instruments and materials
- Process x-rays
- Assist dentists during dental procedures
- Record dental procedures performed
- Educate patients

As administrative assistants, dental assistants may:

- Answer telephone calls
- Co-ordinate appointment schedules
- Keep records of bank transactions, treatment plan procedures and payroll
- Use and maintain dental computer software
- Maintain an inventory of supplies
- Co-ordinate treatments for patients

As intra-oral assistants, dental assistants who have appropriate training and registration may:

- Chairside Dental Assisting
- Exposing Radiographs (X-rays)
- Preliminary Impressions
- Rubber Dam Placements
- Selective Rubber Cup Polishing of Teeth
- Oral Hygiene Instruction
- Dietary Counselling
- Fluoride Application
- Pit & Fissure Sealant Application
- Application of Topical Anaesthetic
- Desensitization of Teeth
- Take & Record Vital Signs
- Fabricate & Insert Bleaching Trays
- Fabricate Mouthguards
- Fabricate Occlusal Rims
- Recall Consultations with Dentists
- Assessing and Reporting Oral Health Status

Dental assistants work as part of a dental health care team that may include dentists, dental hygienists, dental lab technicians and denturists. See a [full list of skills from ODA website](#).

Becoming a Dental Assistant

The Dental Assistant program at Fanshawe College is a 3 term, 36 week Ontario College Certificate program starting in September each year. The program workload is considered to be heavy with:

- Nine courses in your first semester
- One hour of study/practice required for each hour in class
- 25-27 hours of class (50-54 hour/week commitment)

The courses you would take at Fanshawe College can be found on the [Dental Assisting Levels I and II](#) page.

Helpful links for further research into this Fanshawe College program and career opportunity



Graduates are prepared to write [National Board certification exams](#) for Level II Dental Assisting.

Ontario Dental Assistants Association ([ODAA](#))

Canadian Dental Assistants Association ([CDAA](#))

National Dental Assisting Examination Board ([NDAEB](#))

Fanshawe's library has prepared a [subject guide](#) for current students in this program. You may find the links and information provided very useful in learning more about this career.

Opportunities for Further Development or Education

Graduates may apply to the [Dental Hygiene program](#).

A dental assistant often works alongside a dentist, completing different tasks with supervision and helping the dentist do their job. Dental hygienists work directly with patients in the dental office, including conducting examinations and providing cleanings.

[Fanshawe Pathfinder: Dental Assisting](#) © [Fanshawe College](#) used with permission, [All Rights Reserved](#)

Admission requirements:

[Dental Assisting Levels I and II Admission Requirements](#)

There are other programs in the Province that offer this program, here is the guideline recommended by the Ontario Dental Assistants Association:

Certification Requirements:

- Graduate from an approved dental assisting program.
- Successfully complete all National Dental Assisting Examining Board (NDAEB) examination requirements.
- Maintain ODAA membership in good standing.
- Commit to the Code of Ethics.
- Commit to maintaining certification by paying annual dues and submitting proof of continuing education.

PHS Graduates:

Graduates of the PHS2 Pre Health Science – Pathways to Advanced Diplomas and Degrees with a minimum 2.5 GPA and a grade no lower than 2.0 in ANAT 1002, ANAT 1009, BIOL 1003 and BIOL 1009 may apply for advanced credit in Anatomy and Physiology. Refer to program coordinator at start of program for eligibility.



Jennifer Cooper

RDH, BSc, MSc



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1131#oembed-2>

Current Employer	Fanshawe College
Skills You Use Professionally	Communication, hands-on skills, organization
Favourite thing about your job	Watching students as they develop their skills throughout the year
Credentials/Past Professional Experience	Dental Assisting (Levels I & II) Dental Therapy Dental Hygiene, BSc, MSc
One think you would tell your student self	Although it feels like a long program, at the end you'll be amazed at how fast it goes. Buckle down and work hard!

5.4 PROGRAM: DENTAL HYGIENE

Dental hygienists are preventive specialists who provide oral health services rooted in scientific knowledge and a client-centred model of care. It takes a specialized set of dynamic technical and interpersonal skills to clean teeth, take x-rays and promote oral health. If you're looking for a rewarding career that makes a difference to people's health and wellness, the Dental Hygiene program will give you reason to smile. (Fanshawe College, n.d.-c, para. 1)

Video: Dental Hygiene



One or more interactive elements has been excluded from this version of the text. You can view them online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1227#oembed-1>

Video: "[Dental Hygiene](#)" by Fanshawe College [1:06] *Transcript Available.*

About the Profession

A dental hygienist is a regulated health professional who works in a variety of settings, including private practice, public health, hospitals, long-term care facilities, educational institutions and research. They can work independent of or alongside a dentist and are an important part of your health care team (College of Dental Hygienists of Ontario, n.d., para. 1).

Professional Associations



[College of Dental Hygienists of Ontario | L'Ordre des hygiénistes dentaires de l'Ontario](#)
[Ontario Dental Hygienists' Association](#)
[The Canadian Dental Hygienists Association | L'Association Canadienne des Hygiénistes Dentaires](#)

Places you might find yourself employed include

Private dental offices, independent dental hygiene practices, institutions (for example, hospitals, continuing care centres, correctional facilities), public health, community health, homecare and other outreach programs, the armed forces, government or regulatory bodies, research or consulting companies, dental insurance or supply companies, or post-secondary institutions.



Program Fit

What academic skills do I need to be successful in the program?

*This program is very competitive; applicants will likely need some post-secondary experience to be competitive. **The [Pre-Health Science program](#) is the recommended preparation for this program.***

Literacy – Strong written and verbal communications skills are needed. High school courses in Business and Technological Communication would be good preparation.

Math & Science – Good math skills are needed (need a grade 11 or grade 12 math course). High school courses in Biology and Chemistry are required for this program.

Technology – Basic computer skills recommended (Microsoft Office suite, Internet, checking student portal daily).

This list does not replace the admission requirements you must have for admission to the program. Please see the [Dental Hygiene program page](#) for details.

What personal qualities should someone interested in this career have?

- Able to empathize with others
- Able to make decisions/problem solve quickly and confidently
- Able to cope in stressful situations
- Willing to handle situations involving blood and oral debris
- Strong attention to detail
- Flexibility – able to successfully adapt to changing situations
- Ability to accept & comply with professional standards
- Enjoy working with and caring for people
- Excellent communication and interpersonal skills

- Prepared to work with vulnerable people
- Strong organizational and time management skills
- Ability to work within tight timelines

Useful background experience for this program would be

- A part time job in customer service.

Typical working conditions for this kind of work:

- Work regular office hours but may work some evenings and weekends.
- Most clinical procedures require sitting, sometimes in uncomfortable positions.
- Dental hygienists must use safety glasses, masks, gloves, and proper sterilization and disinfection techniques to prevent the transmission of disease to themselves or their patients. Safety precautions also must be observed when taking x-rays and using certain chemicals.
- Dental hygienists may be required to lift young children into a dental chair or help transfer adults from wheelchairs into the dental chair.
- The most common occupational hazards are back, neck and shoulder problems, and carpal tunnel syndrome.
- Working in close proximity to members of the public.

Tasks a graduate may do in the workplace

- Assess oral health conditions
- Develop individualized treatment plans for clients
- Use pain management techniques
- Advise clients about oral health care and the link between oral diseases and systemic diseases
- Expose, develop and interpret x-rays for dental hygiene treatment
- Use fine motor skills in the use of delicate hand instruments and precision power instruments to provide clinical therapies such as crown and root debridement and oral prophylaxis (removing tooth surface deposits and stains) and other non-surgical therapies for periodontal disease
- Apply tooth cavity prevention and desensitizing agents
- Implement prevention programs
- Refer to other health care professionals as appropriate.

In community (public) health settings, dental hygienists may:

- Conduct needs assessments and surveys
- Implement preventive and health promotion programs
- Provide preventive therapies such as debridement and oral prophylaxis
- Apply tooth cavity prevention and desensitizing agents
- Counsel parents, students, seniors, and caregivers about oral health care
- Complete school oral health inspections and visit classrooms to explain the importance of oral hygiene and proper diet, and provide instruction in the care of teeth and gums
- Develop oral health policies for continuing care facilities

- Promote oral health for all age groups.

Becoming a Dental Hygienist

The Dental Hygienist program at Fanshawe College is a 6 term, 90 week Ontario College Advanced Diploma program starting in September each year. The program workload is considered to be heavy with:

- Seven courses in your first semester
- 1–2 hours of study/practice required for each hour in class
- 25-30 hours of class (50 -60 hour/week commitment)

The courses you would take at Fanshawe College can be found on the [Dental Hygiene](#) page.

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Video: [Explore the new Oral Health Clinic at Fanshawe's London Campus](#) by Fanshawe College [0:51] *Transcript available.*

Admission Requirements:

[Dental Hygiene Admission Requirements](#)

In addition to earning a diploma or bachelor's degree in dental hygiene from a college or university accredited by The Commission on Dental Accreditation of Canada, practising dental hygienists must be registered with the dental hygiene regulatory authority in their province or territory. Once registered and practising, most provinces and territories require dental hygienists to successfully complete a number of professional development initiatives each year. In Ontario a quality assurance program is mandatory.

Read more about [Practising in Canada](#).

Career Options

For the most part, dental hygienists work within dental offices, cleaning teeth, checking for signs of decay and disease and managing oral health. While the services a dental hygienist can perform differ by province and territory, such as the ability to administer local anesthesia, all dental hygienists have the education and credentials to specialize in preventive oral care, but they are not limited to that only (Ontario Dental Hygienists' Association, n.d., para. 12).

PHS Graduates:

Graduates of the PHS2 Pre Health Science – Pathways to Advanced Diplomas and Degrees with a minimum 3.0 GPA and a grade no lower than 3.0 in ANAT 1002, ANAT 1009, BIOL 1003 AND BIOL 1008 may apply for advanced standing in Anatomy and Physiology. Refer to program coordinator at start of program for eligibility.



Cathy DeVos

RDH, BAEd, MAEd (c)



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1227#oembed-3>

Current Employer	Fanshawe College
Skills you use professionally	Communication, problem-solving, time management, organization, empathy, independence, attention to detail, fine motor skills
Favourite thing about your job	Working with people and using my instrumentation skills to provide dental care.
Credentials/Past professional experiences	Currently working on my Masters of Adult Education Worked in private practices both general and specialized
One thing I would tell my student self	Ask questions and get feedback; Get involved academically, socially, and professionally.

5.5 PROGRAM: FITNESS AND HEALTH PROMOTION

Fitness and Health Promotion is a two-year Ontario college diploma program for students interested in the fitness industry. Students will learn anatomy and physiology, nutrition, principles of fitness, athletic injuries and personal training. Graduates of this program are able to perform the roles and responsibilities of a fitness consultant or personal trainer.

In the health and fitness program, you'll study exercise science courses in anatomy and physiology, nutrition, principles of fitness, training with weights, exercise physiology, athletic injuries, and personal training. You will also learn the business skills to start a successful career in fitness club management. The program provides great hands-on, practical experience and two extensive on-site work experiences at one of the employers or community partners of the program.

After you graduate from this program with a health promotion diploma, you can find employment with existing commercial and non-profit fitness agencies, rehabilitation services, government oriented fitness programs, agencies serving youth, and many others (Fanshawe College, n.d.-f, para. 1-3).

Video: Fitness and Health Promotion



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1233#oembed-1>

Video: "[Fitness and Health Promotion](#)" by Fanshawe College [1:03] *Transcript Available.*

About the Profession

Graduates of this program may go on to become a Certified personal trainer, group fitness instructor, health club manager, private business owner, YMCA employee (trainer, membership desk, children's services, etc), or fitness instructor in specialty areas (military, cruise ships, women's clubs) (Fanshawe College, n.d.-f).

Employment Opportunities

Private fitness facilities, public leisure centres, municipal recreation centres, YMCAs and YWCAs, large corporations, resorts and hotels, or community health units (Fanshawe College, n.d.-f).



Program Fit

What academic skills do I need to be successful in the program?

This list does not replace the admission requirements you must have for admission to the program. Please see the [Fitness and Health Promotion program](#) page.

Literacy – Strong written and verbal communications skills are needed.

Math & Science – Basic math needed for calculations. Anatomy and nutrition courses require background in biology.

Technology – Basic computer skills recommended (Microsoft Office suite, Internet, checking student portal daily).

What personal qualities should someone interested in this career have?

- Entrepreneurial spirit
- Confident
- Outgoing and likes being in continual contact with people
- Helping/coaching /organizing
- Good at multi-tasking
- Good problem solving and decision making skills
- Open-minded
- Flexible
- Able to hold others accountable for their performance
- Able to providing feedback to people
- Enjoy fostering positive relationships
- Strong time management and organizational skills
- Able to set priorities

- Able to take ownership for learning
- Self-motivated, committed to learning

Useful background experience for this program would be

Coaching experience, participation in high school athletics, and /or leadership experience in youth activities.

Typical working conditions for this kind of work:

- Work in a variety of settings
- May meet clients at fitness facilities or in the clients' homes
- The work is physically and mentally demanding; lifting items (for example, weights) weighing up to 20 kilograms is required
- Trainers are responsible for the safety of their clients and must ensure they and their clients perform exercises correctly to prevent injury
- Early morning, noon hour, evening, and weekend work is common
- Personal trainers spend a considerable amount of time preparing for client sessions and revising training plans.

Tasks a graduate may do in the workplace

Personal Trainer

- Assess client needs, abilities and goals
- Measure body composition, aerobic and anaerobic fitness, muscular strength and endurance, joint flexibility and postural alignment (which may include measuring blood pressure, heart rate and heart recovery rate)
- Develop personalized health and exercise plans
- Demonstrate correct exercise techniques and proper use of exercise equipment
- Ensure clients exercise safely, teach proper breathing techniques
- Lead clients through exercise routines
- Monitor client progress and adapt programs as needed
- Regularly increase the level of difficulty to challenge clients
- Provide resources regarding nutrition, weight control and lifestyle issues

Group Exercise Leader

- Plan routines and choose appropriate music
- Choose different movements for each set of muscles depending on participants' capabilities and limitations
- Help participants gauge their levels of exertion to get the maximum benefit from their exercise routines
- Offer alternatives during classes to accommodate different levels of fitness

Facility worker or manager

- Recording member information
- Promoting the facility through membership sales
- Teaching and demonstrating the use of equipment (for example, treadmills, weight machines)

- Cleaning and maintaining equipment
- Advising clients about proper clothing and shoes

Becoming A Fitness and Health Promotion Graduate

The Fitness and Health Promotion program at Fanshawe College is a 4 term, 60 week Ontario College Diploma program starting in September each year. The program workload is considered to be moderate with:

Seven courses in your first semester

- 1 – 2 hours of study/assignments for each hour in class
- 21-24 hours of class each week (42-48 hour/week commitment)

As a student in our health and fitness program, you'll study exercise science courses in anatomy and physiology, nutrition, principles of fitness, training with weights, exercise physiology, athletic injuries, and personal training. Additionally, you'll experience a variety of health and fitness courses to help you learn the valuable business skills that you'll need to start a successful career in fitness club management, or how to manage a club of your own. Our health and fitness program provides great hands-on, practical experience at Fanshawe's on-site fitness centre. You'll also get two extensive on-site work experiences at one of the employers or community partners of the program.

Helpful links for further research into this Fanshawe College program and career opportunity:



[Certified Personal Trainer \(CPT\)](#)

[Certified Exercise Physiologist \(CEP\)](#)

[Canadian Society for Exercise Physiology \(CSEP\)](#)

[Canadian Fitness Professionals \(CanFitPro\)](#)

Fanshawe's library has prepared a [subject guide](#) for current students in this program. You may find the links and information provided very useful in learning more about this career.

Opportunities for further development or education:

Graduates may apply for advanced entrance into the Fanshawe College [Recreation and Leisure Services](#) program.

Course work may be used as a basis of university admission or credits may transfer to a university degree at many different schools: [Pathways and Credit Transfer](#)

If you're interested in furthering your studies, the health and fitness course will also give you a great foundation to pursue a degree in kinesiology or nutrition. There are also several [articulations](#) in place that give you a head-start on a university degree or a second college diploma! One of the transfer agreements is with [Hartpury College](#) in Gloucester, England.

The courses you would take at Fanshawe can be found on the [Fitness and Health Promotion](#) page.

[Fanshawe Pathfinder: Fitness & Health Promotion](#) © [Fanshawe College](#) used with permission, All Rights Reserved

Admission Requirements:

[Fitness and Health Promotion Admission Requirements](#)

PHS Graduates:

Graduates of the PHS2 Pre Health Science – Pathways to Advanced Diplomas and Degrees with a:

Minimum grade of a 2.0 in ANAT 1002, ANAT 1009, BIOL 1003, BIOL 1009, MATH 1024, MATH 1028 and COMM 3050 may apply for advanced standing in FHP Anatomy, Math and/or Communications upon discussion with the Program Coordinator. Subject to change.



Tara Lawrence, BSc, MEd

Fitness and Health



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1233#oembed-2>

Current Employer	Fanshawe College
Skills you use Professionally	Communication, presentation, active listening
Favourite Thing About Your Job	Working with students to help choose their pathway; developing sustainable programming M.Ed Brock University
Credentials/Past Professional Experiences	BSc Queens University Fitness and Health Diploma Program Fanshawe College Worked in Program Evaluation and Development and in Health Promotion in research and non-profit organizations Canadian Army Reservist
One thing you would tell your student self	If an opportunity presents itself, be confident in the skills you have and challenge yourself to take it!

5.6 PROGRAM: MASSAGE THERAPY ACCELERATED

Registered Massage Therapists (RMTs/MTs) assess and treat physical dysfunction and pain of the soft tissue and joints of the body, mostly by hands-on manipulation.

Assessment and treatment can include orthopaedic and neurological testing, soft tissue manipulation (Swedish massage is the most commonly used technique), hydrotherapy, remedial exercise programs and client education programs (College of Massage Therapists of Ontario, n.d.).

Places You Might Find Yourself Employed

- Private practice
- Rehabilitation centres
- Health and fitness clubs
- Nursing homes
- Community health clinics
- Hospitals/hospices
- Health spas



Program Fit

What academic skills do I need to be successful in the program?

This list does not replace the admission requirements you must have for admission to the program. Please see website for details.

Literacy – Need to be able to read and understand published information; over 50 books are listed as “required” reading on the College of Massage Therapy of Ontario (CMTO) website Some written essay work required.

Math & Science – Have an interest and background in anatomy, chemistry, basic biology and/or exercise science.

Technology – Basic computer skills recommended (Microsoft Office suite, Internet, checking student portal daily).

What personal qualities should someone interested in this career have?

- Comfortable sharing personal space for extended periods of time
- Able to communicate professionally with a diverse population
- Interested in health and wellness issues
- Critical thinking skills
- Interested in on-going learning; continuing education is required to remain a certified massage therapist
- Excellent listening skills
- Friendly, outgoing personality and caring attitude
- Good time management and organizational skills
- Perform in an ethical manner in working with peers, health care staff, patients and customers
- Able to empathize with others
- Enjoy working with and caring for people
- Able to communicate with people across the lifespan

Typical working conditions for this kind of work:

- Massage therapists may operate private practices or work as part of multidisciplinary health care teams. They usually work with one client at a time.
- Therapists who travel to client offices and homes must lift and move equipment that weighs up to 10 kilograms.
- The work can be strenuous and requires standing for long periods of time.
- Hours of work depend on the work setting and the physical capability of the individual therapist.
- Many massage therapists work evenings and weekends, or part time hours in several different locations. May be required to work shifts including evenings, weekends and holidays

Tasks a graduate may do in the workplace

- Conduct client assessments to determine the most appropriate courses of treatment
- Explain procedures, risks and benefits to clients and inform client that they have the right to refuse, stop or alter procedures at any time
- Administer appropriate massage techniques (soft tissue manipulation, relaxation techniques, soft tissue stretching techniques, manual pressure to specific points on the body, hydrotherapy, manual stripping or cross-fibre friction of muscle tissue, trigger point therapy, joint play and mobilizations, lymphatic drainage techniques)
- Suggest appropriate home care and provide information about techniques for postural improvement and stretching, strengthening, relaxation and rehabilitative exercises
- Consult with other health care professionals such as physiotherapists, chiropractors, physicians and psychologists to develop treatment plans for clients
- Obtain, maintain and securely store treatment records

Becoming a Massage Therapist

With a strong focus on medical knowledge, you'll master your massage skills in the *ONSITE student-run clinic*, where you'll experiment with many hands-on techniques. You'll also learn, first-hand, how to assess your clients and their needs, as well as how to maintain, rehabilitate, and augment physical function to relieve pain. You'll also study massage theory and practice while experimenting with different types of massage techniques such as sport, clinical, therapeutic, and pregnancy

Theory and practice are integral to the program, and students will be exposed to directly learning the skills of a Massage Therapist in the first level. Many adjunct therapies to the Massage Therapist will be studied, including sports massage, clinical massage, pregnancy massage and more.

The Massage Therapy program at Fanshawe College is a 6 term, 74 week Ontario College Advanced Diploma program starting in September each year. The program workload is considered to be MODERATE with:

- Seven courses in your first semester
- One hour of study/assignments on average for each hour in class
- 24 hours of class & labs each week (48 hour/week min commitment)

Upon completion of the program you will meet the ministry standards.

Courses that you would take can be found here: [Massage Therapy Accelerated Courses](#)

When you graduate, you'll be recommended to the [College of Massage Therapists of Ontario \(CMTO\)](#) for their entrance exams to the profession. In order to be eligible for accreditation, students must successfully complete all courses in the Massage Therapy program as well as complete a minimum of 330 hours of care to the public (hours are accumulated in Clinical Practice and Outreach Practicum courses).

Helpful links for further research into this Fanshawe College program and career opportunity



Certificate of Registration from the College of Massage Therapists of Ontario: [College of Massage Therapists of Ontario \(CMTO\)](#)
[Registered Massage Therapists Association of Ontario \(RMTAO\)](#)
[Canadian Sport Massage Therapists Association \(CSMTA\)](#)
[Natural Health Practitioners of Canada \(NHPC\)](#)

Fanshawe's library has prepared a [subject guide](#) for current students in this program.

Opportunities for further development or education:

Course work may be used as a basis of university admission or credits may transfer to a university degree at many different schools: [Transfer Agreements](#)

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Admission Requirements:

[Massage Therapy Accelerated Admission Requirements](#)

Related programs:

[Occupational Therapist Assistant and Physiotherapist Assistant
Fitness and Health Promotion](#)

PHS Graduates:

Graduates of the PHS2 Pre Health Science – Pathways to Advanced Diplomas and Degrees with a minimum grade of 60% in ANAT 1002, ANAT 1009, BIOL 1003, BIOL 1009 may have the option to apply for advanced standing in Physiology 1 and Physiology 2 upon discussion with the Program Coordinator. Subject to change.

5.7 PROGRAM: MEDICAL RADIATION TECHNOLOGY

The Medical Radiation Technologist (MRT) uses x-ray radiation to create images of the tissues, organs, bones and vessels that make up the human body. MRTs use their expert knowledge of imaging and equipment, together with an extensive understanding of the principles of anatomy, physiology and pathology, image acquisition, treatment and radiation protection to deliver quality care to their patients. MRTs always ensure the care provided is safe, appropriate, tailored, timely, and maximizes the potential of the available equipment and resources (CAMRT, n.d.).

Video: Medical Radiation Technology



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1587#oembed-1>

Video: “[Medical Radiation Technology](#)” by Fanshawe College [0:58] *Transcript Available.*

About the Profession

A Medical Radiation Technologist (MRTR) produces images of the body part or system using equipment that emits x-rays that will be interpreted by a Radiologist to help make a diagnosis and treatment plan. Using a variety of modalities such as general x-ray, CT and fluoroscopy the radiological technologist (MRTR) works closely with patient to ensure they are in the correct position to patient safety and quality images. More information on the role of and MRT(R) can be found at [CAMRT – Description of Practice](#)

Places you might find yourself employed include

Hospitals, community clinics, doctors’ offices, government agencies, public health agencies, industrial medical service units, military bases, or private or public Medical Imaging Departments.



Program Fit

What personal qualities should someone interested in the career have?

- A sense of responsibility and a high degree of integrity
- The ability to maintain a high level of accuracy in their duties
- Patience and adaptability
- An interest in science and technology
- Good problem solving and critical thinking skills
- Empathic
- Handle situations involving blood/graphic and traumatic cases
- Sensitivity to the needs of ill and injured people
- Good communication skills and the ability to put people at ease
- The ability to work well in a team environment
- Maintain poise and composure in stressful situations
- Be a people person
- Work with people in vulnerable situations
- Willingness to keep skills and knowledge up to date
- Good organizational skills

What kind of work could I do when I graduate?

Graduates of this program may go on to become a [Radiologic Technologist](#) MRT (R); or work in technical support/administration; or be an application specialist/sales.

Places you may find yourself employed include:

Hospitals, community clinics, doctors' offices, government agencies, public health agencies, industrial medical service units, military bases, or private or public Medical Imaging Departments.

Typical working conditions for this kind of work:

- Those employed in community clinics work regular office hours but may be required to work some evenings and weekends
- This is a physically demanding occupation. Medical Radiation Technologists are on their feet for most of their shift. They handle very heavy equipment, move equipment positioned at heights of about 2 metres, lift accessory equipment weighing up to 10 kilograms, and help patients move.
- Medical Radiation Technologists must follow strict radiation safety precautions for themselves and their patients, and be prepared to respond to and manage emergency situations
- Working with new technologies, there is a need for continual study to keep informed
- Working with doctors, nurses, radiologists and other medical staff

Tasks a graduate may do in the workplace

The profession of radiological technologist involves a broad variety of procedures and covers a number of specialties, including: Plain film radiological technology, i.e., x-rays of the chest, bones, joints, gastrointestinal studies, spine; Mammography to detect breast cancer in its earliest stages; Angiography to examine the heart, blood vessels and blood flow; Fluoroscopy, i.e., real-time images that show movement; Computerized tomography (CT scans), i.e., detailed cross-sectional images of the body.

- Explain procedures to patients and answer questions
- Help patients prepare for procedures, when necessary
- Monitor patients during procedures
- Provide primary patient care while patients are in the diagnostic imaging department
- Ensure patient comfort and privacy
- Interpret physicians' requests for radiological examinations
- Use appropriate techniques and positioning for different pathological conditions
- Correctly position patients and equipment
- Inject contrast media when required
- Operate diagnostic imaging equipment to produce quality images that assist in diagnosis
- Recognize various anatomical structures radiographed
- Critique images to ensure high quality results
- Follow radiation protection practices, regulations and philosophy to reduce risk to patients, staff and visitors

Becoming a Medical Radiation Technologist

The Medical Radiation Technology program at Fanshawe College is a 7 term, 104 week Ontario College Advanced Diploma program starting in September each year. The program workload is considered to be heavy with:

- Seven courses in your first semester
- 2 – 3 hours of study required for each hour in class
- 25 -28 hours of class (70 hour/week commitment minimum)

Students spend the third year of the program in a hospital placement.

The program does go through the summer during the placement terms. Students are encouraged to research the placement locations as they may be required to travel or relocate.

Program terms are as follows:

- Level 1 – September to December
- Level 2 – January to April
(summer break)
- Level 3 September to December
- Level 4 –7 Clinical
 - Level 4 -January to April
 - Level 5 May to August
 - Level 6 September to December
 - Level 7 January to April

The courses you would take at Fanshawe College can be found on the [Medical Radiation Technology](#) page.

Helpful links for further research into this Fanshawe College program and career opportunity



CAMRT [certification exam](#)

[Registration with College of Medical Radiation Technologists of Ontario \(CMRTO\)](#) required to work in Ontario

[Canadian Association of Medical Radiation Technologists \(CAMRT\)](#)

Fanshawe's library has prepared a [subject guide](#) for current students in this program. You may find the links and information provided very useful in learning more about this career.

Opportunities for further development or education

Graduates may apply for the [Medical Resonance Imaging](#) graduate certificate

Course work may be used as a basis of university admission or credits may transfer to a university degree at many different schools. [Pathways & Credit Transfer](#)

[Fanshawe Pathfinder: Medical Radiation Technology](#) © Fanshawe College used with permission, All Rights Reserved

Admission Requirements:

[Medical Radiation Technology Requirements](#)

Related careers and Pathways

The MRT profession today includes a diverse array of highly-trained professionals representing various technology-related disciplines in the healthcare field:

[Magnetic Resonance Technologists](#)

[Nuclear Medicine Technologists](#)

[Radiation Therapists](#)

[Radiological Technologists](#)

More information: [The MRT Profession](#)

PHS Graduates:

Are given additional consideration when applying to 3 year advanced diploma certificate program.



Lindsay Grozell

MRT(R)



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1587#oembed-2>

Current Employer	LHSC at University Hospital in the MRI Department
Skills you use professionally	teamwork, dedication, time management, positive attitude, passion, empathy, and communication
Favourite thing about your job	Supporting patients through hard times while providing them with imaging required to help them with their diagnoses.
Credentials/Past Professional Experiences	Medical Radiation Advanced Diploma Program, Fanshawe College CTIC (CT Imaging Certificate)MRI (Magnetic Resonance Imaging) NAIT InstituteMRI Safety Officer CourseLeadership Skills Courses, CAMRTPre-Health Science Certificate, Fanshawe College
One thing you would tell your student self	Continue with any Professional Development of Degree completion options.

5.8 PROGRAM: PARAMEDIC

Video: Ontario Paramedics Facing #COVID on the Frontlines



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1643#oembed-1>

Video: “[Ontario Paramedics Facing #COVID on the Frontlines](#)” by Ontario Paramedic Association [2:08] *No Speaking*.

About the Profession

The role of a paramedic is one of the most rewarding and challenging careers around. When lives are at stake, you're the one who takes charge. If you're excited about being on the front line of medical care, Fanshawe's two-year Paramedic Ontario College Diploma program will give you the specialized skills necessary to begin an adventurous and highly valued career. (Fanshawe College, n.d.-e).

Places you might find yourself employed include

Paramedic service, emergency medical transport, patient transfer, hospitals, community events.

Workers in paramedical occupations administer pre-hospital emergency medical care to patients with injuries or medical illnesses and transport them to hospitals or other medical facilities for further medical care. They are employed by private ambulance services, hospitals, fire departments, government departments and agencies, manufacturing firms, mining companies and other private sector establishments. Paramedics who are supervisors are included in this unit group.

Job Duties

- Assess extent of injuries or medical illnesses of trauma victims, patients with respiratory disease and stress, overdose and poisoning victims, industrial accident victims and other ill or injured individuals to determine emergency medical treatment
- Administer pre-hospital emergency care to patients such as oxygen therapy, cardiopulmonary resuscitation (CPR), spinal immobilization, bandaging and splinting
- Establish and maintain intravenous treatment (IV), apply adjunctive equipment for ventilation and circulation

complications, administer medications and provide other advanced emergency treatment to patients

- Transport patients by air, land or water to hospital or other medical facility for further medical care
- Collaborate with ambulance dispatch centres, hospital staff, police, firefighters and family members to ensure relevant information is collected and proper treatment is administered
- Document and record nature of injuries and illnesses and treatment provided
- Assist hospital personnel with provision of medical treatment, if necessary
- Maintain emergency care equipment and supplies
- May train and supervise other workers in this unit group
- May assist with triage of emergency patients.

(Government of Canada. [Paramedic in Canada](#). Reproduced under terms of use.)

Professional Associations



[Ontario Paramedic Association](#)

[Ontario Association of Paramedic Chiefs](#)

[Ottawa Paramedic Physical Abilities Test](#)



Program Fit

What personal qualities should someone interested in this career have?

- Work well under pressure
- Strong leadership abilities; able to provide clear directions to people
- Sound decision making skills
- A strong desire to help those in need, sick people of all ages
- Ability to empathize with others
- Ability to work on a team
- Self-motivation and work independently
- The ability to remain firm, reassuring and efficient in moments of crisis
- Willing to handle situations involving blood, body fluids and matter and extreme personal situations
- Ability to comply with industry (professional) standards & expectations

Useful background experience for this program would be

St. John's ambulance volunteer, Leadership experience (school council, youth group or church leader, camp counsellor), or experience as a lifeguard.

Typical working conditions for this kind of work:

- This work is physically demanding. Emergency medical personnel are required to lift loads in excess of 95kg (210lbs) with assistance.
- Observe safety precautions to avoid injury when working with equipment and exposure to potentially hazardous biological agents.

- Work both indoors and outdoors, often in stressful circumstances.
- Work shifts that including evenings, weekends and holidays; may work 8, 10, 12, 14 or 24 hour shifts.
- Diverse/uncontrolled working conditions, including periods of inactivity
- Deal with blood/vomit/body material/body parts
- Placed in situations that most never see, involved with extremes of human behaviour

Tasks a graduate may do in the workplace

See full list at Ontarioparamedic.ca

- Conduct patient assessments
- Provide basic airway management
- Administer oxygen by demand, by bag-valve-mask or basic mechanical ventilation
- Perform cardio pulmonary resuscitation (CPR)
- Provide basic trauma care (e.g. spinal and wound care, limb immobilization/traction)
- Administer symptom relief medications and perform semi-automated external defibrillation (SAED)

Becoming a Paramedic

The Paramedic program at Fanshawe College is a 4 term, 60 week Ontario College Diploma program starting in September each year. The program workload is considered to be heavy with:

- Nine courses in your first semester
- 2 – 3 hours of study required for each hour in class
- 22 hours of class (44-66 hour/week commitment)

The courses you would take at Fanshawe College can be found on the [Paramedic](#) page.

Fitness qualifications are required for graduation and employment. As a result students are encourage to begin their fitness training as soon as possible. An example of the requirements can be found: [Ottawa Paramedic Physical Abilities Test](#)

Fanshawe's Paramedic program is nationally accredited by the Canadian Medical Association and is currently the only one of its kind in Ontario to be recognized by the Canadian Armed Forces.

Graduates of this program are eligible to write [Ontario's Advanced Emergency Medical Care Assistant \(AEMCA\) certification exam](#). Upon successful completion of this exam, graduates will be qualified for base hospital certification and employment as a paramedic in the province of Ontario.

Fanshawe Pathfinder: Paramedic © Fanshawe College used with permission, All Rights Reserved

Admission Requirements:

[Paramedic Admission Requirements](#)

[Post Admission Requirements](#) you should consider.

Related Careers and Pathways

[Advanced Care Paramedic](#)

[Emergency Management](#)

[Pathways to Advanced Diplomas and Degrees](#)

PHS Graduates:

Are given additional consideration when applying to 3 year advanced diploma certificate program



Sarah Marrone

PCP Middlesex-London EMS



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1643#oembed-2>

Current employer	Middlesex-London EMS – Primary Care Paramedic
Skills you use professionally	Some of the skills used daily as a primary care paramedic are multi-tasking, problem solving, conflict resolution, ability to work under pressure, and ability to work well with others.
Favourite memory/experience	One of my favourite experiences is when we get to meet cardiac arrest survivors at Survivor Day that we were able to resuscitate and give another chance at life.
Credentials/Past professional experiences	Pre-Health Program – Fanshawe College Emergency Telecommunications – Fanshawe College First Aid/CPR – Health Care Provider Level Primary Care Paramedic Program – Fanshawe College
One thing you would tell your student self	Never limit yourself to only one option/opportunity – you never know what career might be out there that you didn't know about or that you would love

5.9 PROGRAM: PHARMACY TECHNICIAN

Video: Pharmacy Technician



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1651#oembed-1>

Video: “[Pharmacy Technician](#)” by Fanshawe College [0:44] *No Speaking*.

About the Profession

Pharmacy technicians are medical professionals who work alongside pharmacists to help and support patients by utilizing their technical expertise in many aspects of pharmaceutical care (Canadian Association of Pharmacy Technicians, n.d., para. 1)



More information on the scope of practice can be found at: [Canadian Association of Pharmacy Technicians FAQ's](#)

Places you might find yourself employed include

Commercial pharmacies (Shopper’s Drug Mart, Rexall, Pharmasave, Costco), hospital pharmacies, pharmacies in nursing homes or elder care facilities.

[The Vocational Learning Standards](#)

Professional Associations

More information on the profession and associations can be found in the following links:



[Ontario College of Pharmacists \(OCP\) licensing](#)
[Ontario College of Pharmacists \(OCP\)](#) provides information on all pharmacy personnel
[Pharmacy Professional Training and Qualifications](#)
[Ontario Pharmacists Association \(OPA\)](#)
[The Canadian Association of Pharmacy Technicians \(CAPT\)](#)
[National Association of Pharmacy Regulatory Authorities \(NAPRA\)](#)
[The Canadian Council for Accreditation of Pharmacy Programs \(CCAPP\)](#)
[Canadian Pharmacy Technician Educators Association \(CPT EA\)](#)



Program Fit

What personal qualities should someone interested in this career have?

- Perform in an ethical manner in working with peers, faculty, health care staff, patients and customers
- Able to empathize with others
- The ability to remain calm and handle emergencies
- The ability to pay close attention to detail
- Able to make decisions quickly and request assistance/guidance from others as needed
- Able to multitask
- A willingness to keep up to date with new products and practices
- Cooperative/respectful to all members of the health care team
- Able to take charge in a situation and provide direction to others
- Able to work as a member of a team
- Active listening

- Provide feedback to people
- Enjoy working with and caring for people
- Prepared to work with people in vulnerable situations
- Able to communicate with people across the lifespan
- Strong time management/prioritization skills
- Must be self-directed

Typical working conditions for this kind of work:

- Able to accurately recall and apply oral and written procedures
- Must be able to distinguish gradients of colours (need to recognize different pills)
- May be required to work shifts including evenings, weekends and holidays, sometimes under stressful conditions
- Pharmacy technicians are on their feet for most of their shift and may be required to lift and move objects that weigh up to 10 kilograms.

Tasks a graduate may do in the workplace

See [Ontario College of Pharmacists](#) website for details.

- Gather and enter patient information and doctors' prescriptions in computer systems
- Assess prescriptions for completeness
- Receive and transcribe verbal prescriptions from prescribers
- Prepare, package and dispense prescription medications after a pharmacist has determined appropriateness of therapy
- Maintain prescription and inventory record keeping systems
- Maintain proper drug storage and security
- Place and receive orders for stock to maintain inventory
- Provide pharmaceutical care in collaboration with a pharmacist
- Process prescriptions, prepare medications (tablets, suspensions, creams, injectables) and counsel patients on medicine administration and use of diagnostic devices (blood glucose meter)

Becoming a Pharmacy Technician

The Pharmacy Technician program at Fanshawe College is A 60 week, Ontario College Diploma program starting in September each year. The program workload is considered to be heavy with:

- Seven courses in your first semester
- Two hours of study/assignments on average for each hour in class
- 22 hours of class & labs each week (44-66 hour/week commitment)

The courses you would take at Fanshawe College can be found on the [Pharmacy Technician](#) page.

[Fanshawe Pathfinder: Pharmacy Technician](#) © Fanshawe College used with permission, All Rights Reserved

Admission requirements:

[Pharmacy Technician Admission Requirements](#)

PHS Graduates

Graduates of the PHS2 Pre Health Science – Pathways to Advanced Diplomas and Degrees with a grade no lower than 2.0 in ANAT 1002, ANAT 1009, BIOL 1003 and BIOL 1009 may be eligible to apply for advanced standing in Anatomy and Physiology upon discussion with the Program Coordinator. Subject to change.



Jennifer Podeszwa de Oliveira, MSc.(MPH), BSc., RPhT

Coordinator, Pharmacy Technician Program

Professor, Pharmacy Programs



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1651#oembed-2>

Current Employer	Fanshawe College (FT) Commissioners Pharmacy (PT)
Skills you use professionally	Communication, leadership, organization, adaptability, interpersonal skills, time management.
Favorite memory/experience	Sharing my knowledge, experiences and mentoring students.
Credentials/Past professional experiences	Registered Pharmacy Technician, BSc. In Pharmacology and Medical Sciences, Masters (BSc.) Public Health (Health Services Management).
One thing you would tell your student self	Work hard and learn as much as you can from your professors and placement experience. Take your time, quality is more important quantity while you are learning.

5.10 PROGRAM: RESPIRATORY THERAPY

Respiratory therapists (RTs) are healthcare professionals who assess, monitor and treat individuals with respiratory and cardio-respiratory disorders (New Brunswick Association of Respiratory Therapists, n.d., para. 2).

Video: Julie – Respiratory Therapy



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1663#oembed-1>

Video: "[Julie – Respiratory Therapy](#)" by Fanshawe College [1:53] *Transcript Available.*

About the Profession

Respiratory Therapists (RRTs) assess, monitor and treat patients with cardiorespiratory illnesses. The scope of practice of and RRT ranges from research, education to treatment. As a result the RRT is highly specialized and works in a variety of areas such as home care, hospitals, education, clinics, and the industry.

More information can be found at:



Respiratory Therapy Society of Ontario – [Registered Respiratory Therapist \(RRT\) Integrated Role Profile in Ontario](#)

College of Respiratory Therapists of Ontario – [What is a Respiratory Therapist?](#)



Program Fit

What academic skills do I need to be successful in the program?

This program is very competitive; applicants will likely need some post-secondary experience to be competitive. The [Pre-Health Science program](#) is the recommended preparation for this program.

Literacy – Strong written and verbal communications skills are needed. High school courses in Business and Technological Communication would be good preparation.

Math & Science – Excellent math skills required to take measurements using specialized tools and calculate medication dosages and delivery rates. Strong interest and ability in Physics as well as a foundation in high school level biology and chemistry.

Technology – Basic computer skills recommended (Microsoft Office suite, Internet, checking student portal daily).

This list does not replace the admission requirements you must have for admission to the program. Please see [Respiratory Therapy](#) website for details.

What personal qualities should someone interested in this career have?

- Able to make decisions quickly & confidently
- Ability to act quickly and assertively in crisis situations
- Ability to adapt to changing environment
- Moderate mechanical aptitude (you will be working with sophisticated equipment)
- Fine motor skills and manual dexterity
- Ability to work in professional & regulated environment
- Ability to analyze situations and create solutions based on theoretical knowledge
- Active listening

- Excellent verbal communicator; able to provide explanations and directions to patients
- Enjoy fostering positive relationships
- Ability to work in a team
- Enjoy working with and caring for people
- Desire to work with sick and vulnerable people of all ages
- Self-motivated, committed to lifelong learning

Typical working conditions for this kind of work:

- Typically work 12 hour shifts and may work weekends and holidays
- Can work on-call and may travel within a service area
- Spend the majority of their working hours on their feet
- Lifting (up to 10 kilograms) may be required; may routinely help to lift immobile patients
- May experience high levels of stress
- Exposure to blood & bodily fluids, infectious environments

Becoming a Respiratory Therapist

The Medical Radiation Technology program at Fanshawe College is a 100 week Ontario College Advanced Diploma program starting in September each year with theory and practical components. The program workload is considered to be heavy with:

- Eight courses in your first semester
- 1-2 hours of study required for each hour in class
- 18-22 hours of class (38-62 hour/week commitment)

This program follows a curriculum approved by the [College of Respiratory Therapists of Ontario \(CRTO\)](#), the [Canadian Society of Respiratory Therapists \(CRST\)](#) and the [National Alliance of Respiratory Therapy Regulatory Bodies \(NARTRB\)](#), and is accredited nationally through Accreditation Canada. College faculty, together with instructors from the clinical affiliates, provide the scientific foundation and clinical experience required to prepare students for practice at the entry-level within Ontario, as well as nationally and internationally. Graduates will be eligible to write national certification exams and apply for a license with the [College of Respiratory Therapists of Ontario](#) or other regions of Canada.

Graduates of the program must undertake a nationally recognized certification exam in order to make an application for credentialing with the College of Respiratory Therapists of Ontario (CRTO), or to other Regulators within Canada, depending upon where they desire to practice. Graduates who intend to practice in Ontario must apply for registration with the [College of Respiratory Therapists of Ontario \(CRTO\)](#).

The courses you would take at Fanshawe College can be found on the [Respiratory Therapy](#) page.

Fanshawe's library has prepared a [subject guide](#) for current students in this program. You may find the links and information provided very useful in learning more about this career.

Further Information



[Canadian Board for Respiratory Care \(CBRC\) – Respiratory Therapy Exam](#)
[College of Respiratory Therapists of Ontario](#)
[Canadian Society of of Respiratory Therapists \(CSRT\)](#)

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Admission requirements:

[Respiratory Therapy Admission Requirements](#)

PHS Graduates

Given additional consideration when applying to 3 year advanced diploma certificate program



Emily Rowe

BSc, RRT



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1663#oembed-2>

Current Employer	Registered Respiratory Therapist at University Hospital, LHSC, as well as a part time Professor in the Respiratory Therapy Program at Fanshawe College.
Skills you use Professionally	<p>The skills that we use professionally are abundant, but the ones that come to mind first include problem solving skills, critical thinking, communication, compassion, time management, resiliency, and of course good teamwork. Diving a bit deeper into the role itself, we require a specific skills set that includes thorough patient assessments, initiating appropriate oxygen therapy, administering medications, and being an expert in airway management and ventilation.</p>
Favourite Memory	<p>My favourite part of being an RT is the comradery within the profession. We spend so much time with our coworkers (12 hour shifts) and are always working together as a team, which leads to a unique closeness. I have made lifelong friends in this career. We have travelled to conferences together, celebrated each other's milestones both professionally & personally, and have had to problem solve and think quickly on our feet in life or death situations. We've laughed, cried, and carried on together.</p>
Credentials/Past Professional Experiences	<p>Bachelor of Science, University of Ottawa Respiratory Therapy Advance Diploma Program, Fanshawe College</p>
One thing you would tell your student self	<p>The one thing I would tell my student self is that everything is going to work out. The stress and pressure I put on myself sometimes wasn't always the healthiest and I had to find ways to stay grounded. I still carry that mindset with me in my jobs. The RT community is filled with so much support and there is always someone willing to help.</p>

5.11 SCHOOL OF NURSING

Video: Simulation Labs at Fanshawe College



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=2136#oembed-1>

Video: “[Simulation Labs at Fanshawe College](#)” by Fanshawe College [2:06] *Transcript Available.*

The College of Nurses of Ontario (CNO) is the governing body for Registered Nurses (RNs), Registered Practical Nurses (RPNs) and Nurse Practitioners (NPs) in Ontario, Canada. Many students question which path is best for them. According to the CNO “the main difference between RNs and RPNs is the foundational education. While RNs and RPNs study from the same body of nursing knowledge, RNs study for a longer period of time, allowing for a greater depth and breadth of foundations knowledge”. In practice there is at times an overlap in scope of practice for the RN and RPN but generally transfers to the ability for RNs to care for unstable, critical patients and to adapt leadership roles with opportunities to pursue research or graduate degrees. Below will outline some program distinction between RN and RPNs but the full scope of practice as defined by CNO can be found [RN and RPN Practice: The Client, the Nurse and the Environment](#).

The scope of practice statement for nursing states:

The practice of nursing is the promotion of health and the assessment of, the provision of care for and the treatment of health conditions by supportive, preventive, therapeutic, palliative and rehabilitative means in order to attain or maintain optimal function. (College of Nurses of Ontario, 2012, p. 4)

“CNO recognizes that meeting the entry-to-practice competencies requires certain skills and abilities. Seven categories have been identified by CNO as capturing the components necessary for nursing practice¹. They are: 1. Cognitive 2. Communication 3. Interpersonal 4. Behavioral 5. Psycho-motor 6. Sensory 7. Environmental” (College of Nurses of Ontario, 2012, p.2) and can be further defined in the document [Requisite Skills and Abilities for Nursing Practice in Ontario](#).

Fanshawe College School of Nursing offers programs in Bachelor of Nursing (RN), Practical Nursing (RPN) as well as options for Doula Studies and Personal Support Worker. The following pages will describe each program at Fanshawe.

5.12 PROGRAM: BACHELOR OF NURSING

The Bachelor of Nursing Program at Fanshawe College is a 4 year collaborative program with 2 years at Fanshawe College and 2 years at University of Western Ontario. In addition to foundational nursing skills and science the program has an emphasize on overall health care in society, health promotion and ethics. Given that “RNs contribute to the health-care system through their leadership across a wide range of settings in practice, education, administration, research and policy” (Canadian Nurses Association, 2015, p. 5) . CASN finds that baccalaureate programs are needed to “provide the foundation for sound clinical reasoning and clinical judgment, critical thinking, and a strong ethical comportment in nursing” (Canadian Association of Schools of Nursing, 2011, p.1)

Places You May Find Yourself Employed

Public health unit, clinics (ambulatory, medical, dental and community), nursing homes, hospitals, in clients homes, or government services (for example, penitentiaries, outpost nursing, the foreign service, the Canadian Armed Forces).



Program Fit

What personal qualities should someone interested in this career have?

The College of Nurses has published a detailed list of the skills abilities needed for nurses. See their list [Requisite Skills and Abilities for Nursing Practice in Ontario](#).

- Able to empathize with others
- Prepared to work with vulnerable people
- Willing to handle situations involving blood, bodily matter and personal situations
- Able to cope in busy/changing environments
- Able to work in stressful situations
- Able to make decisions in life and death(crisis) situations
- Flexibility – able to deal with uncertainty and changing situations
- Personal integrity
- Able to respect private and confidential information
- Enjoy working with and caring for people of all ages
- Excellent communication and interpersonal skills
- Ability to work as part of a team
- Strong organizational skills
- Able to set priorities

Typical working conditions for this kind of work:

- Shift work
- Night and weekend work required
- Long periods of standing
- Lifting required

Tasks a graduate may do in the workplace

- Assessing the needs of individuals, families, groups or communities throughout the lifespan
- Planning, implementing, evaluating and documenting nursing care
- Coordinating patient care
- Managing and implementing patient care plans, leading and supervising nursing teams and advocating for clients.
- Coordinating and supervising the activities of multi-disciplinary teams responsible for planning and implementing patient care
- Facilitating case management by coordinating health care
- Observing, assessing and monitoring patient symptoms, and evaluating reactions and progress
- Independently implementing nursing interventions as needed
- Collaborating with other members of health care teams regarding patient treatments and examinations
- Administering medications, injections and intravenous therapy
- Preparing patients and assisting surgeons during operations
- Assisting in childbirth, managing labour and caring for newborns and their families
- Preventing or treating injuries or illness, and managing chronic diseases
- Educating patients about health care
- Managing nursing services
- Leading and participating in research activities
- Nurses may specialize in other areas such as [Community Health Nurse](#), [Occupational Health Nurse](#), [Psychiatric](#)

[Nurse](#)

Becoming a Registered Nurse

The Collaborative Bachelor of Nursing program at Fanshawe College is a 120 week, 4 year, Degree program with 2 years at Fanshawe College and 2 years at University of Western Ontario starting in September each year with theory and practical components. Students will do a placement in this program. The program workload is considered to be heavy with:

- Five courses in your first semester
- Three hours of study on average for each hour in class
- 18 hours of class & labs each week (72 hour/week min commitment)

Graduates must take a National Council Licensure Examination for Registered Nurses (NCLEX-RN) – the entry-to-practice to become registered with the College of Nurses of Ontario

This document [Become a Nurse](#) can provide more information about the scope of practice for the RN.

Courses can be found: [Collaborative Nursing | Fanshawe College](#)

Further Information



[National Council of State Boards of Nursing exam \(NCLEX-RN\)](#)

[College of Nurses of Ontario \(CNO\)](#)

[Registered Nurses Association of Ontario \(RNAO\)](#)

Different types of nursing – [Careers in Nursing](#)

Fanshawe Pathfinder: Nursing (BSCN Degree) © Fanshawe College used with permission, All Rights Reserved

Admission requirements:

[Collaborative Nursing Admission Requirements](#)

PHS Graduates

May be given additional consideration when applying



Kaylen O'Rourke

RN, BScN



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=2138#oembed-1>

Current Employer	Alexandra Marine & General Hospital
Skills you use Professionally	Stratford General Hospital – Critical thinking, time management, organizational skills, prioritization, working with other members of the collaborative team.
Favourite Memory	– Nursing skills: medication administration, IV start and management/venipuncture, drip titrations, catheter insertions, vitals, wound care, EKG and cardiac monitoring etc Successfully resuscitating a very challenging case as a new grad RN Pre health science diploma
Credentials/Past Professional Experiences	BScN Cardiac resuscitation courses (neonatal, paediatric, adult) Trauma courses Stroke courses IV start and venipuncture 12 lead ECG interpretation General Paediatric program Emergency triage courses Ongoing education (skills days, textbooks, ongoing Elearning and online webinars)
One thing you would tell your student self	Enjoy the experience of being a student and learning. Don't put so much pressure on yourself. It's going to all work out.

5.13 PROGRAM: PRACTICAL NURSING

Registered practical nurses (RPNs) commonly work in hospitals, clinics, and the community to provide safe and general care to people of all ages. An RPN would work with patients whose condition is considered stable or predictable.

Places You May Find Yourself Employed

Long term care; mental health facilities; homes for the aged, retirement homes, and nursing homes; acute care hospitals; continuing care facilities; community care agencies; assisted living centres; occupational health departments; primary care clinics and physicians' offices; schools; or group homes.



Program Fit

What personal qualities should someone interested in this career have?

The College of Nurses has published a detailed list of the skills abilities needed for nurses. See their list [Requisite Skills and Abilities for Nursing Practice in Ontario](#).

- Able to empathize with others
- Prepared to work with vulnerable people
- Willing to handle situations involving blood, bodily matter and personal situations

- Able to cope in busy/changing environments
- Able to make decisions in life and death (crisis) situations
- Flexibility – able to deal with uncertainty and changing situations
- Personal integrity
- Ability to accept and comply with professional standards of behavior and practice
- Able to respect private and confidential information
- A commitment to life-long learning
- Develop professional relationships and rapport with individuals and groups
- Recognize the importance of maintaining interpersonal boundaries
- Recognize the needs of clients and colleagues
- Respond appropriately in situations that are stressful or involve conflict
- Strong organizational and time management skills
- Able to set priorities

Useful background experience for this program would be

Previous work as a lifeguard; leadership experience in youth activities (school council, youth group or church leader, camp counsellor); work with service clubs related to health care or health promotion, i.e. St. John's ambulance; or volunteer or co-op experience at a hospital or home for the elderly.

Typical working conditions for this kind of work:

- Shift work; night and weekend work required
- Physically demanding work (lifting, standing for long periods of time)
- Deal with blood/vomit/food material/body parts/handle bodily functions

Tasks a graduate may do in the workplace

- Collaborate with registered nurses, psychiatric nurses, physicians, physiotherapists or other health care professionals
- Carry out many nursing responsibilities independently, depending on the nature and complexity of the client care required and the environment in which they work
- Assess, plan, implement and evaluate nursing care
- Use critical thinking and clinical judgment to provide care for individuals and groups
- Document and communicate client data to ensure continuity of care
- Work with a variety of health professionals, consulting as necessary

Becoming a Practical Nurse

The Practical Nursing program at Fanshawe College is a 63 week year, Diploma program starting in September each year with theory and practical components. Students will do a placement in this program. The program workload is considered to be heavy with:

- Eight courses in your first semester

- 1-2 hours of study for each hour in class
- 24-27 hours of class & labs each week (48 – 80 hour/week commitment)

This program is offered part-time and full-time at more than one campus for your convenience. Learn more about the programs and services of Fanshawe's campuses in London ([London Campus](#)) and [Woodstock](#).

Graduates must write Canadian Practical Nurse Registration Examination to registration with the [College of Nurses of Ontario](#) as a Registered Practical Nurse (RPN).

Courses can be found: [Practical Nursing | Fanshawe College](#)

The College of Nurses has published a detailed list of the skills abilities needed for nurses. See their list [Requisite Skills and Abilities for Nursing Practice in Ontario](#).

- Able to empathize with others
- Prepared to work with vulnerable people
- Willing to handle situations involving blood, bodily matter and personal situations
- Able to cope in busy/changing environments
- Able to work in stressful situations
- Able to make decisions in life and death(crisis) situations
- Flexibility – able to deal with uncertainty and changing situations
- Personal integrity
- Able to respect private and confidential information
- Enjoy working with and caring for people of all ages
- Excellent communication and interpersonal skills
- Ability to work as part of a team
- Strong organizational skills
- Able to set priorities

Typical working conditions for this kind of work:

- Shift work
- Night and weekend work required
- Long periods of standing
- Lifting required

Tasks a graduate may do in the workplace

- Assessing the needs of individuals, families, groups or communities throughout the lifespan
- Planning, implementing, evaluating and documenting nursing care
- Coordinating patient care
- Managing and implementing patient care plans, leading and supervising nursing teams and advocating for clients.
- Coordinating and supervising the activities of multi-disciplinary teams responsible for planning and implementing patient care

- Facilitating case management by coordinating health care
- Observing, assessing and monitoring patient symptoms, and evaluating reactions and progress
- Independently implementing nursing interventions as needed
- Collaborating with other members of health care teams regarding patient treatments and examinations
- Administering medications, injections and intravenous therapy
- Preparing patients and assisting surgeons during operations
- Assisting in childbirth, managing labour and caring for newborns and their families
- Preventing or treating injuries or illness, and managing chronic diseases
- Educating patients about health care
- Managing nursing services
- Leading and participating in research activities
- Nurses may specialize in other areas such as [Community Health Nurse](#), [Occupational Health Nurse](#), [Psychiatric Nurse](#)

Becoming a Registered Nurse

The Collaborative Bachelor of Nursing program at Fanshawe College is a 120 week, 4 year, Degree program with 2 years at Fanshawe College and 2 years at University of Western Ontario starting in September each year with theory and practical components. Students will do a placement in this program. The program workload is considered to be heavy with:

- Five courses in your first semester
- Three hours of study on average for each hour in class
- 18 hours of class & labs each week (72 hour/week min commitment)

Graduates must take a National Council Licensure Examination for Registered Nurses (NCLEX-RN) – the entry-to-practice to become registered with the College of Nurses of Ontario

This document [Become a Nurse](#) can provide more information about the scope of practice for the RN.

Courses can be found: [Collaborative Nursing | Fanshawe College](#)

Further Information



[National Council of State Boards of Nursing exam \(NCLEX-RN\)](#)

[College of Nurses of Ontario \(CNO\)](#)

[Registered Nurses Association of Ontario \(RNAO\)](#)

Different types of nursing – [Careers in Nursing](#)

Pathways:

Opportunities for further development or education

Graduates may wish to continue with post [graduate studies](#) at Fanshawe College

Graduates may be able to transfer credit from their diploma to a university degree. See [Fanshawe Pathways & Credit Transfer](#) for a list of agreements.

Graduates may be eligible for application to RPN to BScN University bridging programs at some universities if admission requirements are met

[Fanshawe Pathfinder: Practical Nursing](#) © [Fanshawe College](#) used with permission, [All Rights Reserved](#)

Admission requirements:

[Practical Nursing Admission Requirements](#)

Post Admission:

Refer to [Clinical/Field Pre-Placement Process](#) for important information about placement requirements that need to be met **prior** to starting the program. These include:

- Possession of a Standard First Aid course certificate (either St. John Ambulance or Canadian Red Cross or equivalent) and a Basic Rescuer course certificate – Basic Life Support (BLS) for Health Care Providers (HCP) in accordance with the Heart and Stroke Foundation of Canada Canadian Guidelines for CPR
- Evidence of Good Health (including immunizations)
- Police Vulnerable Sector Check (PVSC), including a check of the Pardoned Sexual Offenders Database
- Placement Agreement

PHS Graduates

Graduates of the PHS2 Pre Health Science – Pathways to Advanced Diplomas and Degrees, within the past 5 years and with a minimum 2.5 GPA and a grade no lower than 3.0 in ANAT 1002, ANAT 1009, BIOL 1003 AND BIOL 1008 may apply for advanced credit in Anatomy and Physiology 1. Refer to program coordinator at start of program for eligibility.

5.14 OTHER PROGRAM PATHWAYS



“Silex Job Skills For the Future” © Fanshawe College

Graduates of the PHS program are prepared for programs in the school of health sciences. However, if you recall Chapter 3, Job Skills, students will develop skills in PHS that are applicable to multiple programs and careers. Part of the learning you are doing in this program is defining your goals, skills and learning styles. This may mean your path changes from health to another area – and that is a success too! Know that you will transfer these skills you have learned and this year is a step to your next opportunity. This section outlines just a few options that PHS has agreements with and some that students have chosen as another path. If you do not see a program listed here, please seecareer services or advising as there are many options available to you.

The links for PHS agreements and pathways here: [Fanshawe College – University Transfer & Program Pathways](#)

Other Healthcare programs:

[Occupational Therapist Assistant & Physiotherapist Assistant](#)
[Personal Support Worker](#)

Maybe you want to work in science, but not bodily functions?

One of these may suit you.

Program: Biotechnology at Fanshawe College

[Honours Bachelor of Applied Technology – Biotechnology](#)

This is a degree program at Fanshawe College. Note students in PHS may need to change math course to advanced functions or calculus second term. See Math professor or Program Coordinator for more details.

Program: Chemical Laboratory Technology – Science Laboratory

[Chemical Laboratory Technology – Science Laboratory](#)

Program: Environmental Technology

[Environmental Technology](#)

University Bachelor of Science Degree

Pre Health Science agreements the PHS meets the admission requirements for Algoma, Laurier, University of Guelph, Western University, and Queen's University; however, students have applied and received admissions to other universities. Students are encouraged to review the admission requirements at those institutes early and meet with an academic advisor to develop a plan.

Have you decided your preference is in the social sciences of helping people?

Fanshawe has many programs for you.

[School of Public Safety](#)

[School of Community Studies](#)

University Programs Studies in Science and Social Sciences

Direct to workplace option:

PHS graduates have gained employment in careers such as: Personal Care Aides, Medical Scheduler, and Observation Care Provider.

Still not sure?

Fanshawe's General Arts and Science program may provide you with some flexibility you need in choosing a variety of courses while completing your certificate. See the Program Coordinator as you can transfer some of your PHS credits towards the GAP certificate.

[General Arts and Science-One Year](#)

CHAPTER 6: SKILLS FOR SUCCESS

Chapter Outline

[6.0 Introduction](#)

[6.1 Skills for Success Chapter Contents](#)

[6.2 Fanshawe Resources](#)

6.0 INTRODUCTION

Learning Objectives

After reading this chapter, you should be able to do the following:

- Describe the contents of Chapters 7 to 17 in this text.
- Identify learning resources and supports available at Fanshawe College.

6.2 FANSHAWE RESOURCES

Fanshawe College Learning Supports



Click on the links below to help identify resources to help you achieve academic success at Fanshawe. We each have a unique journey and so taking time to reflect on areas you may require additional support, and finding out who to contact is the first step.

Workshops

[The Library Learning Commons](#) offers weekly workshops to help you develop your learning skills. Virtual workshops are available to register for online. You will need your student card and fanshaweonline email address.

- [Study Skills Help](#)
- [The Prepare to Learn Series](#) offered through the Library Learning Commons includes sessions on:
 - Learning Online at Fanshawe (how to use FOL and video platforms like ZOOM and BONGO)
 - Returning to Learning (for Mature Students)
- Math, Studying, Test Taking, etc.

Learning Support

Information about registering with Accessibility Services (and Other Learning Supports) can be accessed at this link:

- [Accessibility & Accommodations](#)
- More information about how Fanshawe College supports Indigenous Learning can be found at [Indigenous Learning Centre](#)
- [Peer Tutoring](#) may be available

Getting Help

There are many people and resources at Fanshawe who can help you take a step back, evaluate where you are, develop a plan to get you back on track and set you up with some strategies to monitor your progress.

- **Your Professors** – Should be your first point of contact as outlined earlier in this chapter.
- **Academic Advisors** – Can help review your schedule and course load and help you understand the impacts of adding or dropping courses for your program completion.

- **Library Learning Commons** – Offers workshops to help you with study skills including [time management](#).
- **Counselling Services** – Can help you if you are feeling overwhelmed and facilitate conversations with your professors on your behalf.
- **Family, Friends, Residence Life Manager, and Roommates** – Communicate with them regularly to share your challenges and ask for their help in respecting your study time by sharing your schedule with them. Reciprocate and respect their study time. Work with roommates and friends to support each other while studying and then celebrate with a fun study break together.

Help with Studying

Fanshawe has many resources available to help you study, prepare for tests and help you manage test anxiety that begins to negatively affect your school success.



- [Book a Study Space](#) on campus in a variety of locations. These spaces are perfect for working alone or in a small group to get things done. You will need your student number and FanshaweOnline email address to book this online.
- [Book or Become a Peer Tutor](#)
- Book a one on one [Study Skills Session](#) with a Faculty expert
- Take one of the virtual [Prepare to Learn Workshops on Test Taking Strategies or Study Tips](#)
 - [Virtual and In-Person Math Help](#)
 - [English Writing Appointments](#)
 - [Research Appointments](#)

Expanding Your Support Team



Creating your personal support team will be important to help you through problems. Your professors and academic advisor should be at the top of that list! The contacts below will include some you have seen throughout the text and some may be new to you and require some additional investigation

Financial Aid and Student Awards Office

- Provides financial support and advice to help students fund their college education through government and donor funding and to recognize student excellence.
- Assist with the Ontario Student Assistance Program (OSAP), scholarships, grants, and bursaries as well as the Work Study program.
- Financial planning, including budget advising, is also available (Fanshawe College, n.d. -e).

International Office

- Recruiters and education advisors from around the world including China, India, Korea, Vietnam, Africa, Turkey, Russia, Ukraine and,
- Regulated International Student Immigration Advisor (RISIA), an Exchange Coordinator, International Student Life Coordinators, an International Admissions Team and an Arrival/Settlement Facilitator on our staff (Fanshawe College, n.d.-f).

Registrar

Our team of admissions, registration, and student record experts are **here for you** throughout your student journey.

- Help you learn ways to finance your tuition.
- Change or drop a course.
- Provide an employer or government agency with proof of your student status or transcript.
- Finalize the record for your program and issue your credential (Fanshawe College, n.d.-g).

Fanshawe College – Taking Responsibility for Improving Your Communication Skills



As a full-time student you have access to a full catalogue of LinkedIn Learning modules for free! These training modules vary in length and by completing a training course you are expanding your self-directed learning. Review the catalogue to find courses on business communication, conflict management, cross-cultural communication skills, and add the completion badges to your LinkedIn online profile to show employers you are invested in supporting a diverse workplace.

Connecting to Your Fanshawe Community

- [Fanshawe Student Union](#) – Information to connect with your Fanshawe Community through events, clubs, student government, on campus food information, ride shares, jobs, marketplace, volunteer opportunities, book a pool table or get tickets to events through the BIZ Booth.
- [Campus Recreation, Intramural Sports, E-Sports](#) – Join a team with friends or join one to meet new friends. Drop in opportunities in the gym, classes, simulator sign up, climbing wall or the full gym experience.
- [Events in the Library – Library News](#) – Movies, games and resources to help you connect for fun or study.
- [Practising Interview Skills](#) – Look for workshops on interviewing and ask about the online virtual interview tools or work one on one with a career services team member to practice your interview skills.

6.1 SKILLS FOR SUCCESS CHAPTER CONTENTS



Bailey McCabe, MRT(R)

—



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Current Employer	Instructor at Fanshawe College
	MRT Bluewater Health, Sarnia, ON
	Critical thinking to deduce right course of action in triaging situations under time constraints
	Following and documenting my schedule in a calendar so I am aware of upcoming shifts/class and where they are coinciding with my day-to-day responsibilities
Skills you use professionally	Constant list making and categorizing things based on importance (not how much I do or don't want to do them) – this can look different for everybody based on what they excel at
	Communicating my expectations to my peers and patients while also listening to theirs
	Giving notice ahead of time when things may be difficult for me to achieve and working with my coworker/employer/patient to make a plan for successful completion with realistic expectations
	Having a proper balance of work and home life so that I can be fully invested while I do both and have more 'bang for my buck' while prepping for class/doing my continued education
	My favourite memory/experience most recently was helping a co-workers mother through her breast cancer journey. I was able to communicate the journey she would take throughout our department, day surgery and the OR that day to undergo her lumpectomy when no one else had taken the time to do so. I didn't realize how much of a difference I had made until my coworker brought it up to me how much her mother appreciated me. Sometimes in social jobs (like teaching and hospital worker) you don't always get to see the very final outcomes, or hear how much you made a difference – this was a moment to remind me of the part I played.
Favourite Experience/Memory	
	MRT (Radiology) – trained/educated in general radiology, mammography, CT. I have worked in a clinic setting, WRH (both sites – trauma/peds/oncology), Erie Shores Healthcare, Chatham Kent Hospital Alliance, Strathroy Middlesex General Hospital Alliance, Bluewater Health, Pre-Health Science Program, Medical Radiation Tech Program, leadership skills course through CAMRT, PHS and MRT program instructor
Credentials/Past Professional Experiences	
	I was really stressed about relocating towards the end of my schooling – I knew that if I wanted a job opportunity that would open doors for me I needed to relocate and/or commute. Relocating felt like my life would be over. I dragged my feet for a while but then took the leap so that I could start building my resume. I met some amazing people and learned many different things about my career that now make me stand out in my profession today. It's never a bad idea to learn from multiple departments, or learn about what you want out of a job as well. Every site is different and makes you a more well-rounded worker. I think the same could be said for schooling – lots of people are upset when they don't do the right program at first for example, but it will surprise you the transferrable skills you will learn that others won't have – this means job opportunities down the road. Take everything in life as a learning lesson! Everything is valuable.
One thing you would tell your student self	

Chapters 7 – 17 Contents

The remaining chapters in this text, Chapters 7 to 17, are designed to help you identify and refine your skills for success. In Section 6.1 Skills for Success we list chapters 7 to 17 and the contents of each chapter. In Section 6.2 Fanshawe Resources we list and describe the learning resources and supports that are available at Fanshawe College.

Chapter	Title	Contents
Chapter 7	Learning and Knowing Yourself	What is Learning? What influences our ability to learn? How might preferences and culture impact my learning? Learning challenges Take charge of your learning
Chapter 8	Academic Integrity	Understanding academic integrity Academic Integrity at Fanshawe College Citing and Referencing in APA Format
Chapter 9	Time Management	The benefit of good time management The financial cost of poor time management The cost of procrastination How to manage time Prioritization: Self-management of what you do and when you do it Enhance strategies for time and task management
Chapter 10	Remembering What You Read	Improving your memory The nature and types of reading How do you read to learn Effective Reading Strategies
Chapter 11	Taking Notes	Notetaking General tips on notetaking
Chapter 12	Taking Tests	Your purpose and past provide focus Study strategies – know the focus Study strategies – know the question types Effective studying Taking action – strategies for math tests Group studying Taking action for test anxiety
Chapter 13	Technology and Research	Word processing Internet research Electronic communication Organization and storage Conducting research
Chapter 14	Writing and Presenting	Interpersonal presentation skills Planning the presentation Presentation aids Delivering the presentation
Chapter 15	Decision Making and Problem Solving	Types of thinking Decision making and solving problems Contingency planning vs. crisis management
Chapter 16	Communication Skills – Collaborating with Others	The communication process Opportunities for effective speaking Opportunity for active listening Online discussion forums Team and group work in action Connecting and communicating in action
Chapter 17	Equity, Diversity, and Inclusion	Definition of diversity Evaluating your beliefs Benefits of diversity Resources to learn more about diversity

CHAPTER 7: LEARNING & KNOWING YOURSELF

Chapter Outline

[7.0 Introduction](#)

[7.1 Learning & Knowing Yourself](#)

[7.2 Self-Assessment](#)

[7.3 What is Learning?](#)

[7.4 What Influences Your Ability to Learn?](#)

[7.5 How Might Preferences, Culture and Personality Impact My Learning?](#)

[7.6 Learning Challenges](#)

[7.7 Learning Online](#)

[7.8 Take Action – Take Charge of Your Learning Experience](#)

[7.9 Reflective Activities](#)

[7.10 Career Connections](#)

[7.11 Fanshawe Resources](#)

[7.12 Knowledge Check](#)

7.0 INTRODUCTION

Learning Objectives

In this chapter you will learn about the art of learning itself, as well as how to employ strategies that enable you to learn more efficiently.

After reading this chapter, you should be able to do the following:

- Discover the different types of learning and what is currently influencing your learning.
- Make informed and effective learning choices in regards to personal attitude and motivation.
- Evaluate and make informed decisions about your learning styles and learning skills.
- Identify resources to help you take responsibility for your own learning journey.
- Identify resources to assist you with special learning needs.
- Recognize how academic success connects to career success

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7.1 LEARNING & KNOWING YOURSELF

Getting Ready to Learn

Welcome to one of the most empowering chapters in this resource! While each chapter focuses on showing you clear paths to success as a student, this one deals specifically with what is at the core of being a student: *the act of learning*.

Learning is a Process

It is important to recognize that learning is work. Sometimes it is easy and sometimes it is difficult, but there is always work involved.

For many years people made the error of assuming that learning was a passive activity and was a lot like copying and pasting words in a document; the student's mind was blank and ready for an instructor to teach them facts that they could quickly take in.

But learning is an actual process that physically changes our brains. Even something as simple as learning the meaning of a new word requires the physical alteration of neurons and the creation of new paths to receptors. These new electrochemical pathways are formed and strengthened as we apply, practice, or remember what we have learned.

In addition to the physical transformation that takes place during learning, there are also a number of other factors that can influence how easy or how difficult learning something can be. Knowing a thing or two about learning and how we learn in general can have strong, positive results for your own learning. This is called *metacognition* (i.e., thinking about thinking).

Video: Study LESS Study SMART



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=147#oembed-1>

Video: “[Study LESS Study SMART – Motivational Video on How to Study EFFECTIVELY](#)” by [Motivation2Study](#) [12:03]

Transcript Available.

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7.2 SELF- ASSESSMENT



Reflective Practice

How do you feel about your learning abilities? Take this quick survey to figure it out, ranking questions on a scale of 1–4, 1 meaning “least like me” and 4 meaning “most like me.” These questions will help you determine how the chapter concepts relate to you right now. As you are introduced to new concepts and practices, it can be informative to reflect on how your understanding changes over time.

1. Learning for me is easy. I don't even have to think about it.
2. I feel like I learn better when information is presented in one specific way.
3. If I can't learn something right away, I have difficulty staying with it.
4. I think my teachers are the most significant aspect of my learning.

Review [Chapter 4](#) for a variety of self-assessments that can help you reflect on what influences your ability to learn.

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7.3 WHAT IS LEARNING?

Introduction

We go through three basic steps when we are learning new things: we encode, store, and retrieve that information.



Encoding (Putting Information In)

Encoding is how we first perceive information through our senses – sight, hearing, taste, touch and smell. Since we are all different, it means we will all have different ways of encoding or perceiving information.

If you were asked to learn the 7 Job Skills for the Future, your brain may store this information in the form of the circular image, or your brain may encode this information by listening to the voice of the person from the video a few times.

Both make an impression on our minds through our sense of vision and hearing. We may be able to learn them better if we write them down or talk about them with others or develop an acronym like **CR SIGNS** (complex problem solving, resilience, social intelligence, implementation, global citizenship, novel and adaptive thinking and self-directed learning) or by a combination of any of these examples.

Storage (Memory)

Our brains *encode*, or label, this content to *store* it in our short-term memory in case we want to think about it again. So understanding how your brain receives and stores information will be important to you being able to retrieve it when you take a test or complete a hands on task in the workplace.

Retrieval

If the information is important and we have frequent exposure to it, the brain will **store** it for us in case we need to use it in the future in our aptly named long-term memory. Later, the brain will allow us to **recall or retrieve** that image, feeling, or information so we can do something with it. This is what we call remembering.

Understanding how your brain **encodes** information will help you find the best ways to ensure you **store** it in a way you can **retrieve** it when required. Specific strategies for encoding, storing for easy retrieving for test taking will be covered in future chapters when we look at memory, studying, and test taking.

Activity

In this activity you will try an experiment by combining learning styles to see if it is something that works for you. The experiment will test the example of combining reading/writing and aural learning styles for better memorization.

To begin, you will start with a short segment of numbers. You will read the numbers only one time without saying them aloud. When you are finished, wait 10 seconds and try to remember the numbers in sequence by writing them down.

Click to Show

67914528

After you have finished you will repeat the experiment with a new set of numbers, but this time you will read them aloud, wait 10 seconds, and then see how easy they are to remember. During this part of the experiment you are free to say the numbers in any way you like. For example, the number 8734 could be read as eight-seven-three-four, eighty-seven thirty-four, or any combination you would like.

Click to Show

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Did you find that there was a difference in your ability to memorize a short sequence of numbers for 10 seconds? Even if you were able to remember both, was the example that combined learning styles easier? What about if you had to wait for a full minute before attempting to rewrite the numbers? Would that make a difference?

Learning is Cumulative

If a new skill or knowledge is added to things we have already learned, we may see things in a new way expanding how we think in a way that cannot be reversed. A simple example might be that you know how and why you need to indent a new paragraph in your writing. However, when you learn how to format a document on your computer to do this for you, your learning expands to include this new way to accomplish the task. In essence, it can be said that every time we learn something new we are no longer the same.

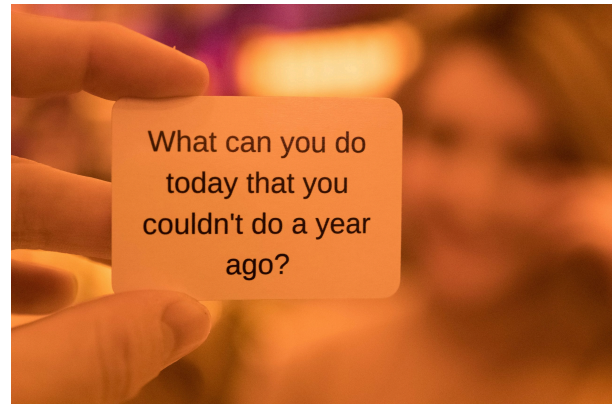


Image by [Miquel Parera](#), Unsplash License

All Learning Is Not the Same

The first, fundamental point to understand about learning is that there are several types of learning. Different kinds of knowledge are learned in different ways. Each of these different types of learning can require different processes that may take place in completely different parts of our brain.

For example, **memorization** is a form of learning that does not always require deeper understanding. You can memorize the equation for Einstein's theory of special relativity ($E = mc^2$) but that is a very different type of learning than, say, being able to apply the equation correctly in a complex physics problem.

In the table below, the left column contains one of the main levels of learning, categorized by what the learning allows you to do. To the right of each category are the "skill acquired" and a set of real-world examples of what those skills might be as applied to a specific topic. This set of categories is called Bloom's Taxonomy, and it is often used as a guide for educators when they are determining what students should learn within a course.

Category of Learning	Skill acquired	Example: Sever
Create	Produce new or original work	Create a plan for improvement for developing the skill you
Evaluate	Justify or support an idea or decision	Decide which skill you
Analyze	Draw connections	Analyze what skills are required in your current job that yo will
Apply	Use information in new ways	Apply your understanding of your environment and skills t beneficial and wha
Understand/ Comprehend	Explain ideas or concepts	Explain v
Remember	Recall facts and basic concepts	Recite the 7

Know Your Purpose

When you engage in any learning activity, take the time to identify the purpose of the lesson or, what you will do with the knowledge once you have attained it. Considering your purpose for even a brief moment before you start anything, allows your brain to retrieve what it already knows, which will help you encode and store new information to store, which reinforces your learning, making it easier to retrieve the new, expanded information from your memory.

Knowing your purpose engages the learning process, which can be seen more like a cycle, and not a linear process as shown above.

Considering your purpose before you begin to read, listen, talk, or write can help a great deal when it comes to making decisions on how to go about learning the information in a way that will work for you.

- If you are asked to read a paragraph to summarize the main idea you would read it very differently than if you were to read a paragraph to identify spelling errors.
- Using flashcards to help memorize definitions does not really help you if you need to analyze a specific business, apply those terms to evaluate its success and create an action plan for the business to improve.
- Memorizing math formulas may not be the best way to study for a math test. Instead, practicing problem-solving with the actual formulas is a much better approach. The key is to make certain the learning activity fits your needs.



Workplace Applications

In the workplace we see how this applies as well:

- Reading and understanding the muscles of the shoulder is very different than being able to understand how the shoulder moves
- Understanding that you need to image a dislocated shoulder is very different from being able to accurately position the patient to get the best view of the dislocation for the radiologist to diagnose
- Knowing the muscles of the shoulder does not mean you can manipulate it correctly without harming a patient

In the next section, you will explore how your attitude, motivation and learning preference impact your learning.



Applying Your Knowledge



An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=154#h5p-3>

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7.4 WHAT INFLUENCES YOUR ABILITY TO LEARN?



Reflective Practice

- What do I believe about my ability to learn?
- How much of my learning is in my own hands?
- Who can help me with my current attitude toward learning?

Traits of Successful Learners



Photo by [Gerd Altmann, Pixabay License](#)

Knowing what is going on in our brain when we learn is valuable to know, but our ability to learn is directly influenced by a variety of other factors. By examining your current situation, you can determine what might be getting in the way of your learning, and who can help you at Fanshawe College as you start to take responsibility for your own learning.

Take some time to consider what you believe about your ability to achieve academic success. What you believe influences what you can achieve.

Your Attitude Toward Learning

When Things are Difficult

Do you think of yourself as a resilient person? Do you see failure as the end of something or just the next step in learning how to do something better? When things go wrong are you able to refocus your efforts and apply a new strategy to tackle the problem? When you can't think of anything else to do, do you give up or ask for help?

In simple terms, **resilience** means your ability to keep going when things get tough. In learning, it can be thought of as a trait that drives a person to keep trying until they succeed. It is not tied to talent or ability, but is simply a tendency to not give up until something is finished or accomplished. The problem is we all understand the concept, but actually applying it takes work. If the task we are trying to accomplish is a difficult one, it can take a lot of work.



How to Develop Resilience

The first step is to adopt an attitude that looks directly to the end goal as the only acceptable outcome. With this attitude comes an acceptance that you may not succeed on the first attempt—or the nineteenth attempt. Failed attempts are viewed as merely part of the process and seen as a very useful way to gain knowledge that moves you toward success.



The main skill I learned from this program [Pre-Health Science] is resilience. I learned that in order to fight for my patients in the future, I had to fight for my knowledge and learning in Pre-Health Science. It wasn't easy but it was the fact that I never gave up and I kept going towards my goal

It's okay not to get it the first time around. People often see failure as a negative but it allows you to learn from your mistakes. If you don't get that high GPA in Pre-Health, that's okay, I had to take General Arts and Science to continue my journey and I did not let that stop me from achieving my passion to help others.

Melanie Mitchell Sparkes, *Pre-Health Sciences Graduate*

Your Motivation

We saw earlier in this book that employers are looking for graduates who can demonstrate competence in complex problem solving, resiliency and self-directed learning. Every time we face a problem, seek a new way to approach it and keep moving forward, we are developing these skills.

To Learn vs To Perform

In a recent survey of post secondary students in Canada, 86% reported they were motivated by grades. Earlier in this book we asked, why are you here, in college? This section provides you with the opportunity to think further about that question.

Performance Goal Focused



Photo by [Nataliya Vaitkevich](#), [Pexels License](#)

If you are a student with strict **performance goals**, your primary psychological concern might be to appear intelligent to others. At first, this might not seem to be a bad thing for college, but it can truly limit your ability to move forward in your own learning, which may have a greater impact beyond school

For example, a student who is strictly performance-goal-oriented will often only say things in a classroom discussion when they think it will make them look knowledgeable to the instructor or their classmates. They don't often ask a question in class when they do not understand a concept because they do not want to risk looking foolish and may put down those who do. They are often very good at certain tasks because they have worked hard at them but don't want to take on anything they don't know.

We saw earlier in this book that employers are looking for graduates with demonstrated skills in solving complex problems, applying novel and adaptive thinking, and implementing solutions to real world problems. Doing those things involves taking risks, making mistakes, and possibly being wrong a lot before you get things right. Students focused on performing do not want to take those risks.

Learning Goal Focused

If you are a student who is driven by **learning goals**, your interactions in classroom discussions are usually quite different. You see the opportunity to share ideas and ask questions as a way to gain knowledge quickly. In a classroom discussion you can ask for clarification immediately if you don't quite understand what is being discussed. If you are a person guided by learning goals, you are less worried about what others think since you are there to learn and you see that as the most important goal.

Another example where the difference between the two mindsets is clear can be found in assignments and other coursework. If you are a student who is more concerned about performance, you may avoid work that is challenging. You will take the "easy A" route by relying on what you already know. You will not step out of your comfort zone because your psychological goals are based on approval of your performance instead of being motivated by learning.

This is very different from a student with a learning-based psychology. If you are a student who is motivated by learning goals, you may actively seek challenging assignments, and you will put a great deal of effort into using the assignment to expand on what you already know. While getting a good grade is important to you, what is even more important is the learning itself.

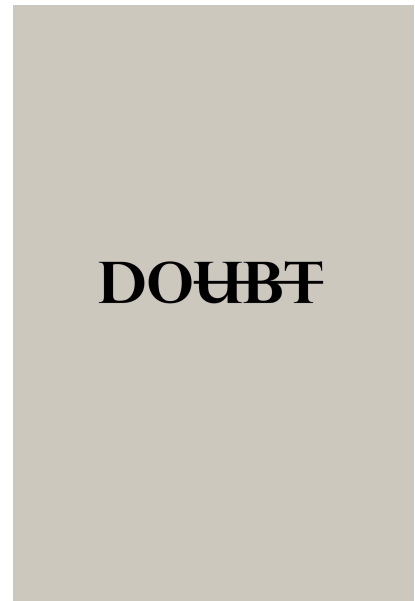


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Performing AND Learning?

If you find that you sometimes lean toward performance-based goals, do not feel discouraged. Many of the best students tend to initially focus on performance until they begin to see the ways it can restrict their learning. The key to switching to learning-based goals is often simply a matter of first recognizing the difference and seeing how making a change can positively impact your own learning.

Performance Goal Students

- Like to PERFORM well (look good) in front of others
- Often TASK experts
- May put down "learners" as "keeners"
- FEAR of looking stupid
- Job oriented

Learning Goal Students

- Curious about things they don't know
 - Takes on new roles or tasks
 - Sees learning as a long-term process/continuous
 - Career oriented
-

Performance Goal Students

- An expert in doing tasks they know
- Asks questions that they already know answers to
- Enjoys staying in their current “comfort zone”
- May put down others who want to go beyond the minimum
- Focused on the grade or outcome
- Enjoys teaching others when they are experts at a task

Learning Goal Students

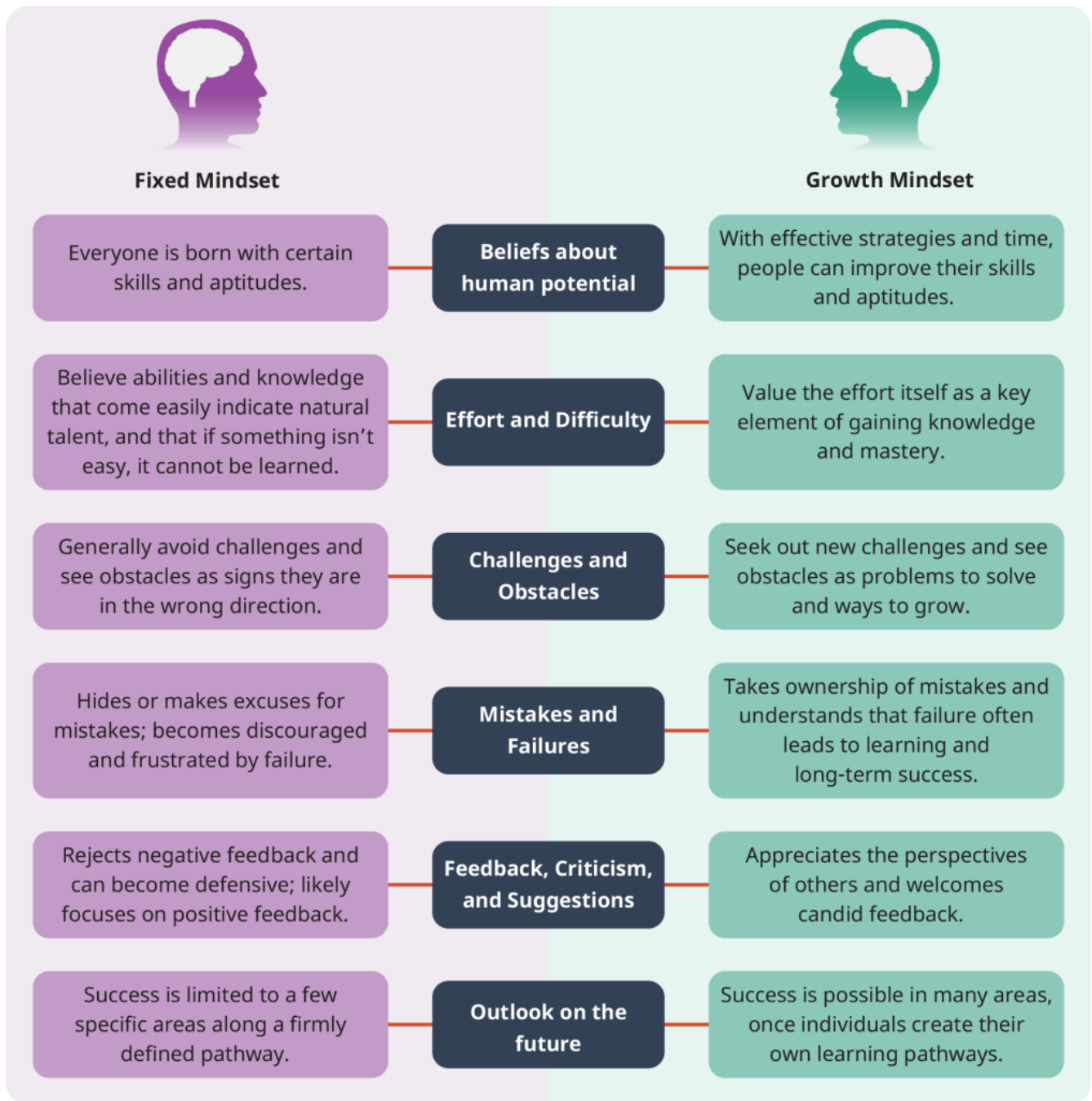
- Wants to develop the PowerPoint for the group but haven’t done it before
 - Asks questions in class
 - Normally is the leader but decides to let someone else take over
 - Reads feedback after each assignment to know how to improve
 - Uses failures as a chance to learn more
 - Enjoys learning something new with others
-

Your Mindset – Fixed vs. Growth Mindset

The research-based model of these two mindsets and their influence on learning was presented in 1988 by Carol Dweck.

In Dr. Dweck’s work, she determined that a student’s perception about their own learning accompanied by a broader goal of learning had a significant influence on their ability to overcome challenges and grow in knowledge and ability. This has become known as the Fixed vs. Growth Mindset model. In this model, the **performance-goal-oriented student** is represented by the **fixed mindset**, while the **learning-goal-oriented student** is represented by the **growth mindset**.

In the following graphic, based on Dr. Dweck’s research, you can see how many of the components associated with learning are impacted by these two mindsets.



The differences between fixed and growth mindset are clear when aligned to key elements of learning and personality. (Credit: Based on work by Dr. Carol Dweck)

The Growth Mindset and Lessons About Failing

Something you may have noticed is that a growth mindset would tend to give a learner resilience and persistence. If you had learning as your major goal, you would normally keep trying to attain that goal even if it took you multiple attempts. Not only that, but if you learned a little bit more with each try you would see each attempt as a success, even if you had not achieved complete mastery of whatever it was you were working to learn.

With that in mind, it should come as no surprise that Dr. Dweck found that those people who believed their abilities could change through learning (growth vs. a fixed mindset) readily accepted learning challenges and persisted despite early failures.

Improving Your Ability to Learn

As strange as it may seem, research into fixed vs. growth mindsets has shown that if you believe you can learn something new, you greatly improve your ability to learn. At first, this may seem like the sort of feel-good advice we often encounter in social media posts or quotes that are intended to inspire or motivate us (e.g. *believe in yourself!*), but in looking at the differences outlined between a fixed and a growth mindset, you can see how each part of the growth mindset path would increase your probability of success when it came to learning.

Combating Negative Bias

Negative bias is the psychological trait of focusing on the negative aspects of a situation rather than the positive. An example of this in a learning environment would be earning a 95 percent score on an assignment but obsessing over the 5 percent of the points that were missed. Another example would be worrying and thinking negative thoughts about yourself over a handful of courses where you did not do as well as in others—so much so that you begin to doubt your abilities altogether.

Some level of worry and concern is natural, but an overwhelming amount of negative thoughts about yourself, including doubt in your abilities and place in school, can impede your learning and stifle your success. You can develop strategies to recognize and overcome these feelings.

Sometimes we may also hold on to old beliefs that no longer serve us well. For example, you struggled with math in high school and so you are dreading math class before it even starts. Or maybe you have been out of school for many years and just “know” you are not going to be able to keep up with all the new technology. Students from other countries often say, English is not my first language so I cannot be as successful as English first language students.

This type of thinking can be a roadblock to learning since a large part of the learning process often involves failure on early attempts. We can start to overcome our negative bias by recognizing our own negative thought patterns and stopping to question whether our thoughts are actually true and if they bring anything positive to our current situation. Another way to combat negative bias is to purposefully focus on successes and to acknowledge earlier attempts that fail as just a part of the learning.

What follows are a few methods for overcoming negative bias and negative self-talk. Each focuses on being aware of any negative attitude or emphasizing the positive aspects in a situation.

- **Be aware of any negative bias.** Keep an eye out for any time you find yourself focusing on some negative aspect, whether toward your own abilities or on some specific situation. Whenever you recognize that you are exhibiting a negative bias toward something, stop and look for the positive parts of the experience. Think back to what you have learned, how any lack of success is only temporary, and what you have learned that gets you closer to your goal.
- **Focus on the positive before you begin.** While reversing the impact of negative bias on your learning is helpful, it can be even more useful to prevent it in the first place. One way to do this is to look for the positives before you begin a task.
- **Keep a gratitude and accomplishment journal.** Again, the tendency to recall and overemphasize the negative instances while ignoring or forgetting about the positive outcomes is the nature of negative bias. Sometimes we need a little help



Photo by Yan Krukau, Pexels

remembering the positives, and we can prompt our memories by keeping a journal. Whenever you are not feeling up to a challenge or when negative bias is starting to wear on you, you can look over your journal to remind yourself of previous accomplishments in the face of adversity.

Video: Fanshawe is Here for You: Counselling Services



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=161#oembed-1>

Video: “[Fanshawe is Here for You: Counselling Services](#)” by [Fanshawe College](#) [1:02] *Transcript Available.*

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7.5 HOW MIGHT PREFERENCES, CULTURE AND PERSONALITY IMPACT MY LEARNING?



Reflective Practice

- How do my culture, personality, and preferences influence my learning?
- Can taking a self-assessment accurately define who I am?
- What is available for specialized learning needs to help me learn?

In this section, we recognize that all people learn differently and take time to reflect on what other factors may influence you on your learning journey.

Learning Preferences

Over the years research has supported and denied that how you receive information impacts your ability to learn. Learning preferences include the **mode** or combination of modes that learners tend to prefer or respond well to, including:

- aural (learn best by listening),
- visual (learn best by seeing pictures, graphs, charts),
- read/write (learn best by reading and taking notes),
- kinesthetic (learn best by doing),
- feeling (learn best by associating emotion to the learning).

This research suggested that some types of learning may work better with some modes. For example, when it comes to learning to ski, it is much more efficient to practice it than to read about it. Along with the type of learning and the preference of the learner, it is good to note that individual learners have different strengths and abilities. Utilizing these to the fullest makes for better learning.

Today, it is generally believed that we use all of these modes, often to best match the situation, however, memory is most enhanced when a combination of modes are used.



One of the most common learning preferences self-assessments can be taken at [VARK Learn](#) and you can visit [Chapter 4](#) to learn more about some strategies that may help you learn using all your senses. You will get a score in four areas which attempts to identify the preferred way in which you like to learn.

Cultural Preferences

Some learning preferences are determined by culture and practice. Certain cultures or groups have specific ways of learning that differ from traditional Western practices. Indigenous learning, for example, often uses story-telling to demonstrate concepts. Stories are passed down from generation to generation, using elders to teach the younger ones. Learning in this manner incorporates social aspects, feelings of safety, and a familiarity for Indigenous learners.

Video: Kalihwiyo Library Learning Commons

Creating a Space for Indigenous Learning.



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/prehealthpathways/?p=164#oembed-1>

Video: "[Kalihwiyo | Library Learning Commons Fanshawe College](#)" by [Fanshawe Institute of Indigenous Learning](#) [3:30]
Transcript Available.

Personality Types

Understanding how personality traits and learning styles are categorized can be useful in making decisions and choices for your own learning activities. It can be interesting to review how personality styles may impact your ability to learn.

Whether you put any value on these theories, it's important to recognize that employers may use personality assessments in the hiring process. For example, an organization may identify a lack of strong leadership in its marketing department. Everyone is good at doing the tasks that need to get done, but no one has the ability to guide the team through a project to deliver the results on time.

When reviewing a series of qualified applicants, a personality assessment may be used to identify which candidates have a leadership personality style before offering anyone an interview.

What knowing about personality traits and learning can do for you is to help you be aware and informed about how these affect you so you can deal with them directly.

Some common personality assessments that you may have heard of include the Myers-Briggs Personality Assessment.

Myers-Briggs: Identifying Personality Traits and Styles

The Myers-Briggs system is one of the most popular personality tests, and it is relatively well known. It has seen a great deal of use in the business world with testing seminars and presentations on group dynamics. In fact, it is so popular that you may already be familiar with it and may have taken a test yourself to find out which of the 16 personality types you most favour.

The basic concept of Myers-Briggs is that there are four main traits. These traits are represented by two opposites, seen in the table below.

Extroverted (E)	vs.	Introverted (I)
Intuition (N)	vs.	Sensing (S)
Feeling (F)	vs.	Thinking (T)
Judging (J)	vs.	Perceiving (P)

It is thought that people generally exhibit one trait or the other in each of these categories, or that they fall along a spectrum between the two opposites. For example, an individual might exhibit both Feeling and Thinking personality traits, but they will favour one more than the other.



You can take a free version of a simple Myers-Briggs Personality Self-Assessment by going to [Chapter 4.2](#). Remember, these types of assessments should never become a way we limit ourselves and who we are. They do, however, offer a opportunity for us to stop and reflect on who we are and identify some areas we may want to work on. They also help us recognize how others may think or act, which raises our social intelligence.

Taking Responsibility for Your Learning

Take responsibility for your own learning, rather than expecting the instructor to help you through the subject in your own personal way. For example, if your strength is as a visual learner but your instructor simply stands at a podium and lectures, then provide your own visual stimulation by sketching concept maps in your notes or by visualizing how information being presented might look in a pie chart or graph.

As you move further into your curriculum, you will likely have more small classes with class discussions, demonstrations, group

presentations, and other learning activities. Once you are in classes closely related to a career path that interests you, you will find your personal style more relevant to the kinds of material you will be learning.

Much learning in college also comes from interactions with others, who often have different learning preferences. Be open to interacting with other students and instructors who are different from you, and you will find yourself learning in ways that may be new to you.

Learning comes in many forms. Whatever learning model you consider, you should pay attention to what works for you (and what doesn't) and organize your study sessions accordingly.



Exercise: Learning Preferences

1. How would you describe your personal learning style preference?
2. Name an activity from which you generally learn very well.
3. Name a type of learning experience you may have difficulty with.
4. For the activity above, list at least two strategies you can use to improve your learning effectiveness when in that situation next time.
5. If you experience a situation in which your personal learning style preference seems to clash hopelessly with an instructor's teaching style, what is your best course of action?
 - a. Ask the instructor to teach in a different way.
 - b. Drop the class.
 - c. Adapt your style or study with other students.
 - d. Complain to the dean.
6. Explain your answer to question 5

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7.6 LEARNING CHALLENGES



Reflective Practice

- What are some challenges that get in the way of learning?
- What are some specialized learning needs that face students?
- What resources are available to support specialized learning needs?

Learning Challenges



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Everyone faces challenges in learning at different times and to different degrees. There are many factors that will affect people's ability to learn. Some are circumstantial (e.g. parenting young children) or environmental (e.g. adapting to a new culture or an online learning environment) while others are self-inflicted (e.g. consistently staying up too late), and yet others are barriers that are more challenging to deal with (e.g. learning disabilities).

Whatever the challenge, you will need to apply all of the Job Skills for the Future ([Chapter 3](#)) to identify strategies and supports to help you through. It's different for everyone, but you are definitely not the only student who is dealing with significant challenges.

Spending time identifying your own personal learning challenges will ensure you find the right resources to help.

Systemic Barriers

Challenges can be inherent in institutions. If things like racism, discrimination, harassment, inclusion, sexual violence, or gender bias are impacting students, they may be struggling with emotional or mental health issues. They may be struggling with feeling safe, feeling respected and valued, being understood, or being accepted. Often students are not aware of how systemic challenges can impede their learning. These kinds of repetitive stressors can cause ongoing problems with memory, retention, and focus.

More information on who can help with this can be found in [Chapter 16](#).

One new contact you could add to your support team is the Office of the Ombuds. They provide guidance in dispute resolution for students and consultation services for all members of the College community who interact with students.

[Office of the Ombuds](#)



Accessibility

The idea of “accessibility” is an important force of change on college campuses today. *Accessibility* is about making education accessible to all, and it’s particularly focused on providing educational support to a diverse group of students, faculty, and staff with disabilities. Colleges offer support for those with permanent disabilities (and some temporary disabilities) such as:

- Mobility impairments
- Learning disabilities
- Mental health conditions
- Deafness or hard of hearing
- Visual impairments
- Attention deficit disorder
- Neurological disabilities or head injuries
- Chronic health problems

Video: Fanshawe is Here for You: Accessibility Services



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/prehealthpathways/?p=168#oembed-1>

Video: “[Fanshawe is Here for You: Accessibility Services](#)” by [Fanshawe College](#) [1:11] *Transcript Available.*

Accommodations

Those with documented disabilities have special legal rights to certain accommodations. Even those whose disabilities are not diagnosed can receive some accommodations. Accommodations may include, but are not limited to, the following:

- Academic accommodations, like alternate format for print materials, classroom captioning, arranging for priority registration, reducing a course load, substituting one course for another, providing note takers, tutors, recording devices, sign language interpreters, a TTY in your dorm room, and equipping school computers with screen-reading, voice recognition, or other adaptive software or hardware
- Exam accommodations and the test centre (e.g. extended time on exams)
- Financial support and assistance
- Priority access to housing
- Transportation and access, like wheelchair-accessible community shuttles

Assistive technologies and web-accessibility accommodations are critical in today’s technology-driven economy and society. The following are some examples of assistive technologies:

- Software like Dragon Naturally Speaking, Kurzweil, Zoom Text, CCTV Magnifier, Inspiration Software
- Computer input devices, like keyboards, electronic pointing devices, sip-and-puff systems, wands and sticks, joysticks, trackballs, and touch screens
- Other web-accessibility aids, like screen readers, screen enlargers, and screen magnifiers, speech recognition or voice recognition programs, and Text-to-Speech (TTS) or speech synthesizers

Fanshawe supports diverse learning needs. Review the links at the end of this chapter for resources to help.

Watch and listen to Ralph (Leopard) Constantin talk about his experience with accessibility services at Fanshawe.

Video: This is Winning – Fanshawe College



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=168#oembed-2>

Video: [This is WINNING](#) by Fanshawe College [2:52] *Transcript Available.*

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7.7 LEARNING ONLINE



Reflective Practice

- How is online learning different from in-person learning?
- What skills will I need to develop that are specific to online learning?
- What is “blended” learning?

Learning online can be difficult if you have never experienced it before, but all it takes is an open mind and person who is ready for success. Three things that help me stay connected with my course and professors were communication, resilience and self motivation. These three things were all a part of my success studying online.

Being resilient through difficult time, was important. I tried approaching each class or assignment on a positive outlook by asking for assistance that I needed. An example of this was attempting to do my first math online test, that was very difficult to complete, because I wasn't able to access the question page. This resulted in me failing my first online test. In this moment, I felt so distraught, that I couldn't continue doing an online course. But with the help of my academic advisor and my professor, I explained what happen and was able to re-write the test, aiming for the grade I deserve.

Self motivation was also a key area towards my success. I was attending classes online and limited in how I could interact by talking through screens. From this point of view, attending classes was not encouraging. However, if you know your goals and strategies for success you can find a routine that will work for you. What worked for me was keeping track of all my assignments and due dates on a planner so that I was always ahead.

These three things, communication, resilience and self-motivation helped me make it through my first term as an online student.”

Shadé Dias: *Fanshawe College Student*

Identifying Skills for Self-directed Learning

- Though all college courses ask students to apply independent learning strategies, online learning requires an even higher level of **self-directed learning** skill.
- Many students have experience in **teacher-directed classrooms**. In these classrooms, the teacher is the central figure, and the

students take direction about what to learn directly from the instructor. In these environments, students might spend time taking notes on an instructor’s lecture, and might focus much of their learning time on memorizing concepts in preparation for recalling them on an exam.

- Students have access to your professor during class time to communicate any complex problems, get help from peers, collaborate to find novel solutions and implement them for some immediate feedback. Face-to-face learning opportunities allow you to meet people from different places and be exposed to different ideas and opinions during class discussion, so you can develop your social intelligence.
- Some classes you have may be designated as **“blended learning”**. This may mean that you have some hours in a classroom with a professor and classmates, but you are also expected to take part in online activities outside of class time. Reviewing your course schedule will help you determine how many credit hours your class includes.
- **Online** college courses are different. The instructor is no longer the central figure in the learning environment. You, the student, become the central actor in your own learning journey. As you undertake this journey, you are supported by your community of fellow students. Your instructor serves as your guide, using their knowledge and experience to direct you to learning experiences that will lead you to your learning goals.
- This means you will have to develop your social intelligence through engaging in online discussions in writing or in person. You will need to review and refine your writing skills to communicate any problems you are having and get comfortable presenting and speaking online while maintaining your resilience during this process.
- COVID has changed the way we learn and do business. Job interviews are conducted online, people are working from home and doing business across the globe from behind a screen. Your online learning journey at Fanshawe will allow you to grow your communication and **complex problem solving skills** in a dynamic online environment, but it may be hard work.
- It’s important that you understand the expectations to be successful in your courses. If you are not sure, check with your professor to determine what format your learning will take place.



Fanshawe has designed an [Online Learning Readiness Indicator](#) survey to help you reflect on what resources it takes to be a successful online learner. The survey asks questions to help you better understand your abilities in self-direction, your learning preference, study habits, technology skills and computer equipment.

Carefully review the written feedback.

The results of this self-assessment may help you identify some learning areas that might require additional attention for you to be successful.

Online connections are important. © Fanshawe College

Video: Online or In-Class Learning? Which is best for you?



One or more interactive elements has been excluded from this version of the text. You can view them online here: <https://ecampusontario.pressbooks.pub/prehealthpathways/?p=171#oembed-1>

Video: “[Online or In-Class Learning? Which is best for you?](#)” by [Fanshawe College](#) [2:43] *Transcript Available.*

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7.8 TAKE ACTION - TAKE CHARGE OF YOUR LEARNING EXPERIENCE



Reflective Practice

- How can I apply what I now know now to my own learning?
- How can I make decisions about my own learning?

For me one of my best strategies for success has been setting up structures for accountability. Sitting at the front of the class is a micro version of this, by being at the front of the class I feel as if pulling out my phone or looking disinterested is ruder and it keeps me accountable to pay full attention.

The larger version of this for me would be both the accountability of workout trackers the volleyball team has set up with the Fanshawe gym and letting my girlfriend know my assignment schedule as well as what I hope to accomplish in a given period of time (today, or this week). These structures of accountability allow for true feedback on when I am slipping and when I am having success which have been paramount for achieving what I want to achieve.

Rob Pass, Fanshawe College Student

Making Decisions About Your Own Learning

As a learner, the kinds of materials, study activities, and assignments that work best for you will derive from your own experiences and needs (needs that are both short-term as well as those that fulfill long-term goals). In order to make your learning better suited to meet these needs, you can use the knowledge you have gained in this chapter to make decisions concerning your own learning.

These decisions can include personal choices in learning materials, how and when you study, and most importantly, taking ownership of your learning activities as an active participant and decision maker. In fact, one of the main principles emphasized in this chapter is that students not only benefit from being involved in planning their instruction, but learners also gain by continually evaluating the actual success of that instruction. In other words: *Does this work for me? Am I learning what I need to by doing it this way?*

While it may not always be possible to control every component of your learning over an entire program, you can take every opportunity to influence learning activities so they work to your best advantage.

What follows are several examples of how this can be done by making decisions about your learning activities based on what you have already learned in this chapter.

Make Mistakes Safe

Create an environment for yourself where mistakes are safe and mistakes are expected as just another part of learning. This practice ties back to the principles you learned in the section on resilience. The key is to allow yourself the opportunity to make mistakes and learn from them *before* they become a part of your grades.

You can do this by creating your own learning activities that you design to do just that. An example of this might be taking practice quizzes on your own, outside of the more formal course activities. The quizzes could be something you find in your textbook, something you find online, or something that you develop with a partner. In the latter case you would arrange with a classmate for each of you to produce a quiz and then exchange them. That particular exercise would serve double learning duty, since to create a good quiz you would need to learn the main concepts of the subject, and answering the questions on your partner's quiz might help you identify areas where you need more knowledge.

The main idea with this sort of practice is that you are creating a safe environment where you can make mistakes and learn from them before those mistakes can negatively impact your success in the course. Better to make mistakes on a practice run than on any kind of assignment or exam that can heavily influence your final grade in a course.



Make Everything Problem Centred

When working through a learning activity, the practical act of problem-solving is a good strategy. Problem-solving, as an approach, can give a learning activity more meaning and motivation for you, as a learner. Whenever possible, it is to your advantage to turn an assignment or learning task into a problem you are trying to solve or something you are trying to accomplish.

In essence, you do this by *identifying the purpose* for the assignment (other than just completing the assignment itself). If you are assigned the task of creating a master calendar of all your due dates in all your courses this term, how can you do this in a meaningful way that will help you make good decisions about completing work? What tool would work best for YOU? What information should you add to the calendar beyond what is required in the assignment to help you be successful? How can you use this calendar to help communicate with your boss or family about your school commitments?



Make It Occupation Related

Much like making assignments problem centred, you will also do well when your learning activities have meaning for your profession or major area of study. This can take the form of simply understanding how the things you are learning are important to your occupation, or it can include the decision to do assignments in a way that can be directly applied to your career. If an exercise seems pointless and possibly unrelated to your long-term goals, you will be much less motivated by the learning activity.

An example of understanding how a specific school topic impacts your occupation future would be learning what is required in a subject line of an email. At first, this may seem like a tedious thing to have to master, but if you recognizes that subject lines communicate information that allows the reader to sort and organize information and reply quickly, you start to see the value of practicing this skill while in college.

In fact, consider a human resources department who has several job ads published looking for employees in various departments. Job postings may be coded or numbered, and the job ad may require that you put the job posting number in the subject line so your resume can be reviewed. Incomplete, incorrect or missing information in the subject line may mean your application never gets reviewed.

Making these types of connections will help you find value in your everyday learning.

Group work will be part of your college experience. Working in groups for class assignments allows you to practice your social intelligence, complex problem solving, resilience, novel and adaptive thinking, implementation, self-directed learning and global intelligence. Taking a leadership role in a group will allow you to not only learn more about yourself, but help you reflect on what motives others to work together.



**GLOBAL
CITIZENSHIP**



**IMPLEMENTATION
SKILLS**

Make the Most of Your Time

One of the most common complaints of college students is that there are too many things to do, and not enough time. Because of this, we must become efficient with our use of time, and it is important that we maximize our learning activities to be most effective. In fact, time management is so important that there is an entire chapter in this text dedicated to it. When you can, refer to that chapter to learn more about time management concepts and techniques that can be very useful.



**NOVEL & ADAPTIVE
THINKING**

Make Fanshawe Faculty Your Partners in Learning

In your early years in school, students come to expect their teachers to tell them what to do, how to do it, and when to do it. College learners, on the other hand, seem to work better when they begin to think of their instructors as respected experts that are partners in their education.

The change in the relationship for you as a learner accomplishes several things:

- it gives you ownership and decision-making ability in your own learning,
- it enables you to personalize your learning experience to best fit your own needs,



**SOCIAL
INTELLIGENCE**

- it gives your instructors the opportunity to help you meet your own needs rather than focusing on trying to get information to you.

The way to develop learning partnerships is through direct communication with your instructors and Fanshawe supports.

Whether you are communicating in person or by email, if there is something you do not understand or need to know more about, go directly to them.

Video: Student Success at Fanshawe – Library Learning Commons



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=175#oembed-1>

Video: “[Student Success at Fanshawe | Library Learning Commons](#)” by [Fanshawe College](#) [2:03] *Transcript Available.*

When you have ideas about how you can personalize assignments or explore areas of the subject that interest you or better fit your needs, ask your professor about it. By demonstrating that you are taking a direct interest in your own learning most instructors will gladly become a valuable resource in your educational and career development.

“[2.7 Take Action – Take Charge of Your Learning Experience](#)” from [Fanshawe SOAR](#) by Kristen Cavanagh is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](#), except where otherwise noted.

7.9 REFLECTIVE ACTIVITIES



Reflective Practice

Learning Style vs Learning Preference – Do Labels Limit Us or Help Us Understand?

Watch this [TEDx video](#) on learning styles and the importance of critical thinking. After you have watched the video, consider some of the reflective points below.

- a) The concept of personalized learning styles has been popular for almost half a century. Given the information presented in this video, why do you think people are attracted to the idea of personal learning styles even though evidence shows they do not actually exist?
- b) If you were going to devise an experiment to prove or disprove the idea of personalized learning styles, what would you do?

How Can I Reflect on What Influences My Learning, and How Others Learn?

1. Explore [Chapter 4](#) and select two self-assessment tool to try.
 - a) How well do you think the results reflect who you are right now?
 - b) How could you use this information about yourself to help you become a more successful learner OR how could you use this information to help you be more successful in the workplace?
 - c) How could knowing more about learning preferences and personality styles help you when you have to work with others to achieve a common goal?
2. Self-directed learning [is defined by Fanshawe College](#) as _____ (see also [Chapter 3](#)). Do you think you will be able to manage your own learning successfully? Why or why not? Give some examples to support your opinion.
3. After reviewing this chapter, what challenges do you think you may face this term and what are some strategies you can try to help you with these challenges?

Exercise: Learning Preference



An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=177#h5p-4>

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7.10 CAREER CONNECTIONS

Career Connections

COVID changed the way we do work and continues to influence the way we learn, whether in an academic or employment settings. Professionals today need to regularly redevelop their skills and acquire new skills to keep current with what our new job landscape looks like. Your ability to adapt to these rapid fire changes will influence your success in the workplace and that includes your ability to learn.

Developing your self-directed learning skills will help you develop your novel and adaptive thinking skills, and implement solutions to solve complex problems.



“Silex Job Skills For the Future” © Fanshawe College

Common Job Interview Question

- Tell me about a time when you had to learn something new in a short period of time. What was the situation? What did you do? How did it turn out?
- You have to teach your team at work how to program their voicemail on the new phone system. How would you go about approaching this task? What steps would you take and how would you know if you were successful?

Developing Your Self-Reflective Practice

There is value in developing your self-reflective practice. Some companies pay thousands of dollars to have their employees take part in these types of assessments to help raise awareness and develop a common language to communicate with each other so things get done.

Scenario #1 – The Workplace

Imagine you are a store manager and you prefer to communicate by email with your shift supervisor Hussein every Monday to let him know what needs to be accomplished that week. Every week you notice things are still not done and your emails become longer and you become more frustrated with his performance.

Which one would happen next if you know about how people may learn things?

1. You can start to keep track of what Hussein is not doing, write more detailed emails and then hold him accountable by writing a poor performance review, and possibly fire him and start the process of finding someone to replace him.
2. Hussein gets frustrated with your long emails and quits and you need to then take over for him while you find

someone to replace him

3. You can recognize that Hussein **may not learn well by reading** emails. Instead, you schedule a virtual meeting each week where you discuss the tasks that need to get done, you ask Hussein to write the list himself and you discuss any questions or concerns Hussein has so you can help work through any obstacles, revise the list of things to be done or identify ways to delegate or postpone some of the tasks.

Future of Learning and Development in the Workplace

Read the article below and answer the questions that follow:

[2023 Workplace Learning Report: Building the Agile Future](#)

1. According to the article, what role with learning and development have in the workplace now and in the future?
2. In what ways do you agree or disagree with what the article says?
3. Do you consider self-directed learning a strength or area that you could improve? (Provide some examples to support your opinion).

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7.11 FANSHAWE RESOURCES

Fanshawe College Learning Supports



Click on the links below to help identify resources to help you achieve academic success at Fanshawe. We each have a unique journey and so taking time to reflect on areas you may require additional support, and finding out who to contact is the first step.

Workshops

[The Library Learning Commons](#) offers weekly workshops to help you develop your learning skills. Virtual workshops are available to register for online. You will need your student card and fanshaweonline email address.

[The Prepare to Learn Series](#) offered through the Library Learning Commons includes sessions on:

- Learning Online at Fanshawe (how to use FOL and video platforms like ZOOM and BONGO)
- Returning to Learning (for Mature Students)
- Math, Studying, Test Taking etc.

Learning Support

Information about registering with Accessibility Services (and Other Learning Supports) can be accessed at this link:

- [Accessibility & Accommodations](#)
- More information about how Fanshawe College supports Indigenous Learning can be found at [Indigenous Learning Centre](#)
- [Peer Tutoring](#) may be available

7.12 KNOWLEDGE CHECK



Reflective Practice

- Do you keep a journal? One way to combat negative bias is to keep a “gratitude and accomplishment” journal. What accomplishments could you list in that journal? What are you grateful for?
- Are you a self-directed learner? What can you do to take control of your own learning?
- Preference, culture, and personality impacts our learning. How might they also impact your career in healthcare?

This chapter identifies how being a motivated learner can empower you to make informed choices about your own learning. Throughout the chapter, you were introduced to ideas, research, and popular models on learning and given examples of how to use each of these as an effective part of your own learning experience.

- In college, you are responsible for your own learning, whether you are learning in a face-to-face classroom, online, or in a blended environment.
- Learning at college and in the workplace goes beyond the memorization of facts.
- Successful learners understand your subject materials so that you can think about it in meaningful ways and apply it to new situations.
- Reflecting on all the things that influence your ability to learn will help you identify strategies to maximize your learning potential and help you achieve academic and workplace goals.
- There are a variety of challenges that face learners and many supports to help you achieve your goals starting with your professor.
- Identifying partners in learning at Fanshawe College will help you develop a support network to help you meet your unique learning needs.



Applying Your Knowledge





An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=183#h5p-31>



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=183#h5p-32>



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=183#h5p-35>

Glossary

Aural

Blended Learning

Complex Problem Solving Skills

CR SIGNS

Encoding

Fixed Mindset

Growth Mindset

Kinesthetic

Learning Goals

Long-term Memory

Memorization
Metacognition
Online Learning
Performance Goals
Read/Write Learning Preference
Recall
Resilience
Self-Directed Learning
Teacher-Directed Classrooms
Visual Learning Preference

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CHAPTER 8: ACADEMIC INTEGRITY

Chapter Outline

[8.0 Introduction](#)

[8.1 Understanding Academic Integrity and APA Citations](#)

[8.2 Training – Academic Integrity](#)

[8.3 Training – Citing and Referencing in APA Format](#)

[8.4 Knowledge Check](#)

8.0 INTRODUCTION

Learning Objectives

By the end of this section, you will be able to:

- Define academic integrity and common forms of academic dishonesty
- Identify common scenarios that can lead to academic dishonesty, and possible consequences
- Identify strategies for avoiding plagiarism
- Outline the consequences of breach of Academic Integrity procedure at Fanshawe College
- Recall Fanshawe's Academic Integrity policy and the Academic Offence process,
- Identify the actions and behaviours that are considered to be Academic Offences, and
- Determine how to avoid Academic Offences so that you can achieve and maintain Academic Integrity during your time as a student at Fanshawe College.
- Recall how in-text citations are used in conjunction with references to give credit for work borrowed and used in assignments.
- Identify the APA formatting features used in citing and referencing and where to look them up.
- Determine how to apply the rules of citing and referencing in APA format to work completed for submission.

"I would prefer even to fail with honour than win by cheating."

Sophocles

“[2.4 Understanding Academic Honesty and APA Citations](#)” from [Fundamentals for Success in College](#) by Priti Parikh is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](#), except where otherwise noted.

8.1 UNDERSTANDING ACADEMIC INTEGRITY AND APA CITATIONS



Reflective Practice

- What is Academic Integrity and academic honesty?
- Why is understanding the Academic Integrity Policy so important as a college student?



[“Shortcutting Prohibited”](#) by [Stephen Coles](#), [CC BY-NC-SA 2.0](#)

Academic Integrity and Dishonesty

At most educational institutions, “academic integrity” means demonstrating and upholding the highest integrity and honesty in all the academic work that you do. In short, it means doing your own work and not cheating, and not presenting the work of others as your own.

The following are some common forms of academic dishonesty prohibited by most academic institutions: Refer to the college's [Maintaining Academic Integrity website](#).

Cheating

Cheating can take the form of looking over someone's shoulder during an exam, or any forbidden sharing of information between students regarding an exam or exercise.

Deception

Deception is providing false information to an instructor concerning an academic assignment. Examples of this include giving a dishonest excuse when asking for a deadline extension, or falsely claiming to have submitted work.

Fabrication

Fabrication is the falsification of data, information, or citations in an academic assignment. This includes making up citations to back up arguments or inventing quotations.

Plagiarism

Plagiarism, as defined in the 1995 Random House Compact Unabridged Dictionary, is the “use or close imitation of the language and thoughts of another author and the representation of them as one's own original work” (Emory University, 2022, para. 4). In an academic setting, it is seen as the adoption or reproduction of original intellectual creations (such as concepts, ideas, methods, pieces of information or expressions, etc.) of another author (whether an individual, group, or organization) without proper acknowledgement. This can range from borrowing a particular phrase or sentence to paraphrasing someone else's original idea without citing it. Today, in our networked digital world, the most common form of plagiarism is copying and pasting online material without crediting the source.

Video: Plagiarism



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=207#oembed-1>

Video: “[Plagiarism and You](#)” by [The Learning Portal](#) [5:40] *Transcript Available.*

Common Forms of Plagiarism

According to “The Reality and Solution of College Plagiarism” created by the Health Informatics department of the University of Illinois at Chicago (n.d.), there are ten main forms of plagiarism that students commit:

- Submitting someone else’s work as their own.
- Taking passages from their own previous work without adding citations.
- Rewriting someone’s work without properly citing sources.
- Using quotations, but not citing the source.
- Interweaving various sources together in the work without citing.
- Citing some, but not all passages that should be cited.
- Melding together cited and uncited sections of the piece.
- Providing proper citations, but failing to change the structure and wording of the borrowed ideas enough.
- Inaccurately citing the source.
- Relying too heavily on other people’s work. Failing to bring original thought into the text.

As a college student, you are now a member of a scholarly community that values other people’s ideas. In fact, you will routinely be asked to reference and discuss other people’s thoughts and writing in the course of producing your own work. That’s why it’s so important to understand what plagiarism is and steps you can take to avoid it.

Avoiding Plagiarism

Below are some useful guidelines to help you avoid plagiarism and show academic honesty in your work:

- **Quotes:** If you quote another work directly in your work, cite your source.
- **Paraphrase:** If put someone else’s idea into your own words, you still need to cite the author.
- **Visual Materials:** If you cite statistics, graphs, or charts from a study, cite the source. Keep in mind that if you didn’t do the original research, then you need to credit the person(s) or institution, etc. that did.

The easiest way to make sure you don’t accidentally plagiarize someone else’s work is by taking careful notes as you research. If you are doing research on the Web, be sure to copy and paste the links into your notes so can keep track of the sites you’re visiting. Be sure to list all the sources you consult.

Lastly, if you’re in doubt about whether something constitutes plagiarism, cite the source or leave the material out. Better still, ask for help. Use the college’s [Library Learning Commons APA Citation Guide](#) to learn more about APA citation. Taking the time to seek advice is better than getting in trouble for not attributing your sources. Be honest about your ideas, and give credit where it’s due.

Consequences of Plagiarism

In the academic world, plagiarism by students is usually considered a very serious offence that can result in punishments such as a failing grade on the particular assignment, the entire course, or even being expelled from the institution. Individual instructors and courses may have their own policies regarding academic honesty and plagiarism; statements of these can usually be found in the course syllabus or online course description.



Activity

Strengthen your understanding by participating in the following self-paced activity.

[Course: Academic Integrity at Fanshawe College](#)

APA Citation

Welcome to Fanshawe's Library Learning Commons APA (American Psychological Association) Style Guide. Access the resources below to understand how to use the APA citation style accurately.

[Overview – APA 7th Edition Citation Guide](#)

[Academic Integrity at Fanshawe College](#)



Knowledge Check

Remember:

- Being dishonest can have major consequences that can affect you as a college student and also your life beyond college.
- “Everyone cheats” and “It’s no big deal at my college” cannot justify the act of cheating.
- When you cheat, you are primarily cheating yourself.

“[2.4 Understanding Academic Honesty and APA Citations](#)” from [Fundamentals for Success in College](#) by Priti Parikh is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](#), except where otherwise noted.

8.2 TRAINING - ACADEMIC INTEGRITY



Academic Integrity Defined

Fanshawe College defines '**Academic Integrity**' as '***holding oneself and others accountable for performing academic work both honestly and ethically***'.

Developing and demonstrating **Academic Integrity** is something that Fanshawe faculty and staff expect of each other, it's something that Fanshawe College expects of its students, and it's certainly something that employers and recruiters will expect of Fanshawe graduates.

If you're able to hold yourself and others accountable for performing 'academic' work both honestly and ethically, then you'll be able to hold yourself and others accountable for performing 'professional' work both honestly and ethically when you're out in the workplace in the industry of your choice.

If you can develop and demonstrate Academic Integrity while you're a student at Fanshawe, you'll be able to further develop and demonstrate **Professional Integrity** when you become an employee or an entrepreneur after graduation.

Academic Integrity is important for the following FIVE reasons:

1. it ensures fairness in the education that students pursue,
2. it ensures fairness in the academic work that students complete,
3. it ensures fairness in the grades that students earn,
4. it protects the value of your credentials, and
5. it protects the reputation of your academic institution.

Please consider the key guiding principles when asked about academic integrity: *fairness, value, and reputation*.

Video: Academic Integrity and Avoiding Plagiarism

This video contains information that will help you achieve and maintain Academic Integrity by avoiding plagiarism. Please see additional videos below for more information.



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=189#oembed-1>

Video: [Academic Integrity and Avoiding Plagiarism](#) by [Fanshawe Academic Integrity](#) [4:19] *Transcript Available.*



To learn more, review the book: [Academic Integrity at Fanshawe.](#)

Other Resources

- [Academic Integrity course](#) in FanshaweOpen
- Attend an [Academic Integrity workshop](#) with the Library Learning Commons

Videos

- [Academic Integrity & Assignments](#)
- [Academic Integrity & Evaluations](#)
- [Academic Integrity & Online Learning](#)



Applying Your Knowledge



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=189#h5p-5>



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8.3 TRAINING - CITING AND REFERENCING IN APA FORMAT

This video contains information that will help you understand what **citing** and **referencing** are, how they are used and why they are required to ensure academic integrity. Please see additional videos below for more information.

Video: APA Documentation



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=191#oembed-1>

Video: [Writing Tips | What is APA Documentation and How to use it](#) by [Fanshawe Institute of Indigenous Learning](#) [4:03]

Transcript Available.

Video: In-Text Citations and APA Formatting



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Video: [Writing Tips | How to do In-Text Citations in APA Formatting](#) by [Fanshawe Institute of Indigenous Learning](#) [3:42]

Transcript Available.

Video: How does APA Documentation Work?



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Video: [Writing Tips: How does APA Documentation Work?](#) by [Fanshawe Institute of Indigenous Learning](#) [4:15]
Transcript Available.

Additional Writing Tips

- [YouTube Playlist Study Tips](#)
- Register for the [APA Resources Course on FOL](#)

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8.4 KNOWLEDGE CHECK



Reflective Practice

How does Fanshawe College define “academic integrity”?

What can you do to maintain academic integrity during your training at Fanshawe?

What is “plagiarism” and what strategies can you use to avoid an academic offence?



Applying Your Knowledge



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Glossary

Academic Integrity

APA Format

Cheating

Citing

Deception

Fabrication

Plagiarism

Professional Integrity

Referencing

CHAPTER 9: TIME MANAGEMENT

Chapter Outline

[9.0 Introduction](#)

[9.1 Time Management](#)

[9.2 The Benefit of Good Time Management](#)

[9.3 The Financial Cost of Poor Time Management](#)

[9.4 The Cost of Procrastination](#)

[9.5 How to Manage Time](#)

[9.6 Prioritization: Self-Management of What You Do and When You Do It](#)

[9.7 Enhanced Strategies for Time and Task Management](#)

[9.8 Career Connection](#)

[9.9 Fanshawe Resources](#)

[9.10 Knowledge Check](#)

9.0 INTRODUCTION

Learning Objectives

In this chapter you will learn why managing your time and focus is important to your success as a student and in the workplace as well as how to employ strategies that enable you to use the time you have more efficiently.

After reading this chapter, you should be able to do the following:

- Discover your beliefs about time management and your current strengths managing all you have to do
- Make informed and effective learning choices in regards to personal attitude and motivation
- Evaluate and make informed decisions about how to organize the focus the time you have available to you
- Identify tools and strategies to apply to help you take responsibility for structuring your time inside and outside of school
- Identify Fanshawe resources to assist you on campus
- Recognize how academic success connects to career success

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9.1 TIME MANAGEMENT

For college-level learning, you can expect to spend much more time on learning activities outside the classroom than you will in the classroom.

In fact, the estimated time you should spend will be at least two hours of outside learning for every one hour of lecture.

Another guide you can consider when planning your time is to budget to spend 2 hours for every 5% an assignment/task/quiz is worth. This is only an estimate and you may find you need more or less time depending on your understanding and interest in the topic.

Taking time to track how long things take you to do will help you estimate how much time you will need to schedule for you to do this same or similar task in the future.

You have an exam worth 25% of your grade, approximately how much time should you schedule to make study notes, review, revise, look up more information and do practice tests for the exam to be successful?

Schedule up to 10 hours of time (2 hours per 5%), but break this down into daily tasks. After every class, review your notes, slides and readings. Fill in gaps and summarize what you learned, create questions for things you don't understand and work with your professors, your classmates and others to fill in any missing information, and do practice questions.

You have a short paper to write worth 10% of your grade. How much time should you budget to complete this task?

Schedule up to 4 hours to review the assignment instructions and marking rubric, ask questions, collect the information you need, outline what you want to say, do any research, write a draft, review your work, get any final assistance, submit and check to see your submission went through. Ideally, complete the paper a few days early and then go back and give it one last look over before submitting. Breaking down this four hours will ensure you do a bit each day and have time to identify any problems with plenty of time to problem-solve with the help of your professor, classmates or other Fanshawe resource people.

If both of these are due 7 days from now, how easy will it be to schedule the estimated time into your current schedule?

This will depend on what other things your schedule contains and how important they are. There are also often unexpected things like car repairs, broken computer, illness that prevent us from meeting deadlines. By creating a schedule each week based on what we have due, we can start to work backward from the due date.

Some weeks may be more intense, especially around mid-term and end of term. If those hours are multiplied over several courses in a given session, you can see how there is a significant amount of time to manage.

Unfortunately, many students do not always take this into consideration, and they spend far less time than is needed to be successful. The results of poor time management are often a shock to them.

If you work part time, time management skills are even more essential. These skills are still more important for part-time college students who work full time and commute or have a family. To succeed in college, virtually everyone has to develop effective strategies for dealing with time.



A Medical Radiation technologist performs multiple procedures using modalities that other health care professionals, such as the radiologist and treatment physician rely on in a timely manner complete a diagnosis and treatment plan.

Jamie Kueneman, MRT(R)



Reflective Practice

Read each statement in the brief self-evaluation tool below, and check the answer that best applies to you. There are no right or wrong answers.

	Always	Usually	Sometimes	Rarely	Never
I like to be given strict deadlines for each task. It helps me stay organized and on track.					
I would rather be 15 minutes early than 1 minute late.					
I like to improvise instead of planning everything out ahead of time.					
I prefer to be able to manage when and how I do each task.					
I have a difficult time estimating how long a task will take.					
I have more motivation when there is an upcoming deadline. It helps me focus.					
I have difficulty keeping priorities in the most beneficial order.					

This exercise is intended to help you recognize some things about your own time management style. The important part is for you to identify any areas where you might be able to improve and to find solutions for them.

After you have decided your best response to each statement, think about what they may mean in regard to potential strengths and/or challenges for you when it comes to time management in college. If you are a person that likes strict deadlines, what would you do if you took a course that only had one large paper due at the end? Would you set yourself a series of mini deadlines that made you more comfortable and that kept things moving along for you? Or, if you have difficulty prioritizing tasks, would it help you to make a list of the tasks to do and order them, so you know which ones must be finished first?

In Strategies for Success classes at Fanshawe students regularly identify that they feel time management is their weakest skills and often they create a S.M.A.R.T. goal and plan about around how to get better.

This chapter will provide some solutions, but there are many others that can be found by researching time management strategies.

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9.2 THE BENEFIT OF GOOD TIME MANAGEMENT



Getting Started

- How much time should I be spending outside of class?
- What is the difference between time management and productivity management?

Where Should Your Time Go?

Plan for the ideal use of a week's worth of time. Fill in your hours in this order:

1. Hours attending class
2. Study hours (2 times the number of class hours plus 5 or more hours extra)
3. Work, internships, and fixed volunteer time
4. Fixed life activities (sleeping, eating, hygiene, chores, transportation, etc.)

Now subtotal your hours so far and subtract that number from 168. How many hours are left?

This will help you find the remaining hours for “discretionary activities” (things you don’t have to do for school, work, or a healthy life).

After completing this you may see that something, somewhere has to give. That’s part of time management — and why it’s important to keep your goals and priorities in mind.

The other part is to learn how to use the hours you do have as effectively as possible, especially the study hours. For example, if you’re a typical college student who plans to study for three hours in an evening but then procrastinates, gets caught up in a conversation, loses time to checking e-mail and text messages, and listens to loud music while reading a textbook, then maybe you actually spent four hours “studying” but got only two hours of actual work done. So you end up behind and feeling like you’re still studying way too much. The goal of time management is to actually get three hours of studying done in three hours and have time for your life as well.

9.3 THE FINANCIAL COST OF POOR TIME MANAGEMENT

The High Cost of Poor Time Management

We often hear about the benefits of managing your time, but it's important to think about the cost of poor use of your time.

There is a significant cost associated with delaying graduation from college by only one year (by dropping and retaking courses, taking less than a full credit load, etc.). Not only will you pay for additional tuition, living expenses and other fees associated with going to school, but if you are using student loans, you will also accumulate interest on those loans.

Delayed graduation also means the cost of the lost opportunity of working. How much money could you have made working in your new job that you didn't make because you had to stay in school?



Photo by [Towfiqu barbhuiya](#), [Unsplash License](#)

Fill in the chart to calculate what an additional 2 terms may cost

Tuition, textbooks, and fees	\$
Rent, food, gas	\$
Lost wages	\$
Average total loss:	\$

It is worth noting that any situation that brings about a delay in graduation has the potential to increase the cost of college. This also includes attending school on a part-time basis. While in some instances responsibilities may make it impossible to go to school full-time, from a financial perspective you should do all you can to graduate as soon as you can.

While it may not be possible to prevent life challenges while you are in college, you can do a great deal to prevent the chaos and the chain reaction of unfortunate events that they can cause. This can be accomplished through thoughtful prioritization and time management efforts.

What follows in the rest of this chapter is a close look at the nature of time management and prioritization in ways that can help keep you on track to graduate college on time.

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9.4 THE COST OF PROCRASTINATION



Getting Started

- Why do we procrastinate?
- What are the effects of procrastination?
- How can we avoid procrastination?

Simply put, procrastination is the act of delaying some task that needs to be completed. It is something we all do to greater and lesser degrees. For most people, a little minor procrastination is not a cause for great concern. But there are situations where procrastination can become a serious problem with a lot of risk.

These include:

- when it becomes a chronic habit,
- when there are a number of tasks to complete and little time, or
- when the task being avoided is very important.

Because we all procrastinate from time to time, we usually do not give it much thought, let alone think about its causes or effects. Ironically, many of the psychological reasons for why we avoid a given task also keep us from using critical thinking to understand why procrastination can be extremely detrimental, and in some cases difficult to overcome.

To succeed at time management, you must understand some of the hurdles that may stand in your way. **Procrastination** is often one of the biggest. What follows is an overview of procrastination with a few suggestions on how to avoid it.



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Three Reasons Behind Procrastination

There are several reasons we procrastinate, and a few of them may be surprising. On the surface we often tell ourselves it is because the task is something we do not want to do, or we make excuses that there are other things more important to do first. In some cases this may be true, but there can be other contributors to procrastination that have their roots in our physical well-being or our own psychological motivations.

1. Lack of Energy

Sometimes we just do not feel up to a certain task. It might be due to discomfort, an illness, or just a lack of energy. If this is the case, it is important to identify the cause and remedy the situation. It could be something as simple as a lack of sleep or improper diet. Regardless, if a lack of energy is continually causing you to procrastinate to the point where you are beginning to feel stress over not getting things done, you should definitely assess the situation and address it.

2. Lack of Focus

Much like having low physical energy, a lack of mental focus can be a cause of procrastination. This can be due to mental fatigue, being disorganized, or allowing yourself to be distracted by other things. Again, like low physical energy, this is something that may have farther-reaching effects in your life that go beyond the act of simply avoiding a task. If it is something that is recurring, you should properly assess the situation.

3. Fear of Failure

This cause of procrastination is not one that many people are aware of, but essentially, it is a bit of trickery we play on ourselves by avoiding a situation that makes us psychologically uncomfortable.

Even though they may not be consciously aware of it, the person facing the task is afraid that they cannot do it or will not be able to do it well. If they fail at the task, it will make them appear incompetent to others or even to themselves. Where the self-trickery comes in is by avoiding the task. In the person's mind, they can rationalize that the reason they failed at the task was because they ran out of time to complete it, not that they were incapable of doing it in the first place.

It is important to note that a fear of failure may not have anything to do with the actual ability of the person suffering from it. They could be quite capable of doing the task and performing well, but it is the fear that holds them back.

What is it Costing You

In addition to the causes of procrastination, you must also consider what effects it can have. Again, many of these effects are obvious and commonly understood, but some may not be so obvious and may cause other issues.

Loss of Time

The loss of time as an effect of procrastination is the easiest to identify since the act of avoiding a task comes down to not using time wisely. Procrastination can be thought of as using the time you have to complete a task in ways that do not accomplish what needs to be done.

Loss of Goals

Another of the more obvious potentially adverse effects of procrastination is the loss of goals. Completing a task leads to achieving a goal. These can be large or small (e.g., from doing well on an assignment to being hired for a good job). Without goals you might do more than delay work on a task—you may not complete it at all. The risk for the loss of goals is something that is very impactful.

Loss of Self-Esteem

Often, when we procrastinate we become frustrated and disappointed in ourselves for not getting important tasks completed. If this continues to happen, we can begin to develop a low opinion of ourselves and our own abilities. We begin to suffer from low self-esteem and might even begin to feel like there is something wrong with us. This can lead to other increasingly negative mental factors such as anger and depression. As you can see, it is important for our own well-being to avoid this kind of procrastination effect.

Peace

Procrastination causes stress and anxiety, which may seem odd since the act of procrastination is often about avoiding a task we think will be stressful in itself! Anyone who has noticed that nagging feeling when they know there is something else they should be doing is familiar with this.

On the other hand, some students see that kind of stress as a boost of mental urgency. They put off a task until they feel that surge of motivation. While this may have worked in the past, they quickly learn that procrastinating when it comes to college work almost always includes an underestimation of the tasks to be completed— sometimes with disastrous results.

Strategies for Psyching Ourselves Out and Managing Procrastination

Now that you understand a few of the major problems procrastination can produce, let's look at methods to manage procrastination and get you on to completing the tasks, no matter how unpleasant you think they might be.

Steps to Staying Focused

Get Organized

Much of this chapter is dedicated to defining and explaining the nature of time management. The most effective way to combat procrastination is to use time and project management strategies such as schedules, goal setting, and other techniques to get tasks accomplished in a timely manner.

Put Aside Distractions

Distractions are time-killers and are the primary way people procrastinate. It is too easy to just play a video game a little while longer, check out social media, or finish watching a movie when we are avoiding a task. Putting aside distractions is one of the primary functions of setting priorities.

Reward Yourself

Rewarding yourself for the completion of tasks or meeting goals is a good way to avoid procrastination. An example of this would be rewarding yourself with the time to watch a movie you would enjoy *after* you have finished the things you need to do, rather than using the movie to keep yourself from getting things done.

Be Accountable—Tell Someone Else

A strong motivational tool is to hold ourselves accountable by telling someone else we are going to do something and when we are going to do it. This may not seem like it would be very effective, but on a psychological level we feel more compelled to do something if we tell someone else. It may be related to our need for approval from others, or it might just serve to set a level of

commitment.



Applying Your Knowledge

Mel Robbins, offers insights into what our brain is doing when we procrastinate and provides a great procrastination buster strategy called the 5 second rule.



One or more interactive elements has been excluded from this version of the text. You can view them online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=467#oembed-1>

Video: “[The 5 Second Rule ❖ Mel Robbins](#)” by [Positive HiT](#) [6:46] *Interview Closed Captioned.*

1. Consider something right now that you may be procrastinating about.
2. Pick one of the strategies listed above to try out on that one thing and see how it works for you.

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9.5 HOW TO MANAGE TIME



Getting Started

- How can I use time-on-task estimates to improve time management?
- What behaviours can help or hinder when it comes to managing time?

How to Manage Time

The simplest way to manage your time is to accurately plan for how much time it will take to do each task, and then set aside that amount of time. How you divide the time is up to you but there will be some more information on this in [Chapter 12](#) on Test Taking.



Fanshawe College Online Due Dates to Your Phone

There are a variety of tools that can help you organize your time. Specifically, downloading the [Brightspace PULSE app](#) to your phone. This app connects to Fanshawe Online and IF your professor has set a due date in your FOL calendar, your phone will alert you to upcoming due dates.

Spend some time learning how to set up notifications in Fanshawe Online so that you can get alerts for when grades are posted or feedback published. Click on your profile picture and then notifications to learn more.

CAUTION: Technology is only a tool to help, it is not smart! You are responsible for developing a strategy that works for you!

Knowing Yourself

While you can find all sorts of estimates online as to how long a certain task may take, it is important to know these are only averages.

People read at different speeds, people write at different speeds, and those numbers even change for each individual depending on the environment.

If you are trying to read in surroundings that have distractions (e.g., conversations, phone calls, etc.), reading 10 pages can take you a lot longer than if you are reading in a quiet area. By the same token, you may be reading in a quiet environment (e.g., in bed after everyone in the house has gone to sleep), but if you are tired, your attention and retention may not be what it would be if you were refreshed.

However, this is not a simple task. Let look at reading for example. The time you need to read something can vary greatly depending on:

- How familiar you are with the topic already
- How complex the reading/writing is
- Your purpose for reading it (for a test, general understanding, to teach it to someone else, etc.)

Ultimately, the only way you are going to be able to manage your time accurately **is to know yourself** and to know how long it takes you to do each task.

“To manage my time, I work backwards. When I find out about a due date for an assignment, I make a list of all the parts that need to be done to complete it. I start with the due date/time and work backwards, creating my own deadline for when each part needs to be done. When I create my schedule to complete something, I also factor in how long I work out per day and my work schedule.”

Collin Locke Fanshawe College

Tips for Staying Focused and Motivated

Many people are not truly aware of how they actually spend their time. They make assumptions about how much time it takes to do certain things, but they never really take an accurate account.

Write down all the things you think you will do tomorrow, and estimate the time you will spend doing each. Then track each thing you have written down to see how accurate your estimates were.

Obviously, you will not want to get caught up in too much tedious detail, but you will want to cover the main activities of your day—for example, working, eating, driving, shopping, gaming, being engaged in entertainment, etc.

After you have completed this activity for a single day, you may consider doing it for an entire week so that you are certain to include all of your activities.

Many people that take this sort of personal assessment of their time are often surprised by the results. Some even make lifestyle changes based on it.



Applying Your Knowledge

See how much time you are spending based on the example below:

Activity	Estimated Time	Actual Time
Practice Quiz	5 minutes	15 minutes
Reading	20 minutes	35 minutes
Food shopping	45 minutes	30 minutes
Bus to and from school	40 minutes	60 minutes
Netflix	1 hour	3 hours

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9.6 PRIORITIZATION: SELF-MANAGEMENT OF WHAT YOU DO AND WHEN YOU DO IT



Getting Started

- Why is prioritization important?
- What are the steps involved in prioritization?
- How do I deal with situation where others' priorities are not the same as my own?
- What do I do when priorities conflict?
- What are the best ways to make sure I complete tasks?

Prioritization: Self-Management

Another key component in time management is that of prioritization, including what to do and when to do it. **Prioritization** can be thought of as ordering tasks and allotting time for them based on their identified needs or value.

This next section provides some insight into not only helping prioritize tasks and actions based on need and value, but also how to better understand the factors that contribute to prioritization.

How to Prioritize

The enemy of good prioritization is panic, or at least making decisions based on strictly emotional reactions. However, when it comes to juggling multiple problems or tasks to complete, prioritizing them first may mean the difference between completing everything satisfactorily and completing nothing at all.

Make Certain You Understand the Requirements of Each Task

Before you can create a plan you will need to understand what your assignments are asking you to do. For example, if your assignment requires you to create a website to show your work and you have never made website, you will require more time and can then plan accordingly. Read the instructions and marking rubric early in the term for all major assignments and note the following:

- identify what the assignment is worth and how it will be graded (review any rubrics available)
- identify the skills and resources required to complete it – what skills do I have and who can help me develop the skills I don't have (build in time for reaching out to Fanshawe support staff who can help with research, writing, math, IT, etc.
- estimate the time it will take to complete based on what you have learned from the first 2 steps – work backward from the due

date and break up the assignment into smaller chunks and set milestones for parts of a project and give yourself a due date a few days in advance for time to review and revise

- find the best time and space to focus on this task and eliminate distractions to focus
- plan for the unexpected – have a back up plan
- communicate regularly when problems arise to keep your professors aware – even if you think you can solve the problem (they may have some suggestions)

Make Decisions on Importance, Impact on Other Priorities, and Urgency

After you are aware of the requirements for each task, you can then decide your priorities based on the importance of the task and what things need to be finished in which order.

If you have two assignments due on the same day, at the same time it will be important.

How to Sort Tasks and Set Priorities

To better see how things may need to be prioritized, some people make a list of the tasks they need to complete and then arrange them in a quadrant map based on importance and urgency.

In this activity you will begin by making a list of things you need or want to do today and then draw your own version of the grid below. Write each item in one of the four squares; choose the square that best describes it based on its urgency and its importance. When you have completed writing each the tasks in its appropriate square, you will see a prioritization order of your tasks. Obviously, those listed in the Important and Urgent square will be the things you need to finish first. After that will come things that are “important but not urgent,” followed by “not important, but urgent,” and finally “not urgent and not important.”

	Urgent	Not Urgent
Important	Urgent and Important <ul style="list-style-type: none">• Paper due tomorrow• Apply for internship by deadline	Not Urgent but Important <ul style="list-style-type: none">• Exam next week• Flu shot
Not Important	Urgent but Not Important <ul style="list-style-type: none">• Amazon sale• Laundry	Not Urgent and Not Important <ul style="list-style-type: none">• Check social• TV show

The Eisenhower Matrix can help organize priorities and ensure that you focus on the correct tasks.

Outside Influencers

Many of your tasks are being driven by a number of different individuals who are not only unaware of the other things you need to do, but they often have goals that are in conflict with your other tasks. This means that different instructors, your manager at work, or even your friends and family may be trying to assert their needs into your priorities.

In some cases, keeping others informed about your priorities may help avert possible conflicts (e.g., letting your boss know you will need time on a certain evening to study, letting your friends know you plan to do a journal project on Saturday but can do something on Sunday, etc.).

It will be important to be aware of how others can drive your priorities and for you to listen to your own good judgment. In essence, time management in college is as much about managing all the elements of your life as it is about managing time for class and to complete assignments.



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What if I Can't Get it All Done?



Photo by [Gerd Altmann](#), [Pixabay License](#)

Occasionally, regardless of how much you have planned or how well you have managed your time, events arise where it becomes impossible to accomplish everything you need to by the time required.

Finding yourself in this kind of situation is when prioritization becomes most important. When this occurs with college assignments, the dilemma can be extremely stressful, but it is important to not feel overwhelmed by the anxiety of the situation so that you can make a carefully calculated decision based on the value and impact of your choice.

To manage a situation like this it is important to understand all the factors involved. While it may seem that whichever assignment is worth the most points to your grade is how you make the choice, there are other things to consider.

For example, one of the assignments may only be worth a small amount toward your total grade, but if you don't complete it, you may not be able to complete work for the next part of the course. Or the instructor for one of the courses might have a "late assignment" policy that is more forgiving—something that would allow you to turn in the work a little late without too much of a penalty.

If you find yourself in a similar predicament — Communicate with your instructors professionally, in a written email, to let them know about the situation well in advance of the due date and tell them:

- What you have completed already,
- What you still have to do,
- Exactly when YOU think YOU can submit your work,
- Your appreciation for considering your request.

The key here is to make certain you are aware of and understand all the ramifications to help make the best decision when the situation dictates you make a hard choice among priorities.



Applying Your Knowledge

Analysis: Take the time to think about where you will do your work and when. What can you do to help ensure your working environment will be helpful rather than harmful? What do you know doesn't work for you? What will you do to prevent those adverse conditions from creeping into your work environment? What changes can you make TODAY to help you use the time you have more productively?

Below is a quick survey to help you determine your own preferences in regard to your work space, the time you work, and distractions. Rank each option: 1–4, 1 meaning “least like me” and 4 meaning “most like me.”

- I like my workspace to be organized and clean.
- There are certain places where I am more comfortable when I work.
- I prefer to be alone when I work on certain things.
- I find it difficult to read with other sounds or voices around me.
- There are certain times of the day when I can be more focused.
- My moods or emotions can interfere with my ability to concentrate.

“4.6 Prioritization: Self-Management of What You Do and When You Do It” from [Fanshawe SOAR](#) by Kristen Cavanagh is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](#), except where otherwise noted.

9.7 ENHANCED STRATEGIES FOR TIME AND TASK MANAGEMENT



Getting Started

- What strategy helps me prioritize my top tasks?
- How do I make the best use of my time when prioritizing?
- How do I make sure I tackle unpleasant tasks instead of putting them off?
- What's the best way to plan for long-term tasks?
- How do I find time in a busy schedule?

Time Management

Here are three unique strategies that have become staples of time management. While not everyone will find that all three work for them in every situation, enough people have found them beneficial to pass them along with high recommendations. These three techniques are:

1. Daily Top Three
2. Pomodoro Technique
3. Eat the Frog

1. Daily Top Three

The idea behind the *daily top three* approach is that you determine which three things are the most important to finish that day, and these become the tasks that you complete. It is a very simple technique that is effective because each day you are finishing tasks and removing them from your list.

Even if you took one day off a week and completed no tasks on that particular day, a *daily top three* strategy would have you finishing 18 tasks in the course of a single week. That is a good amount of things crossed off your list.



Reflective Practice

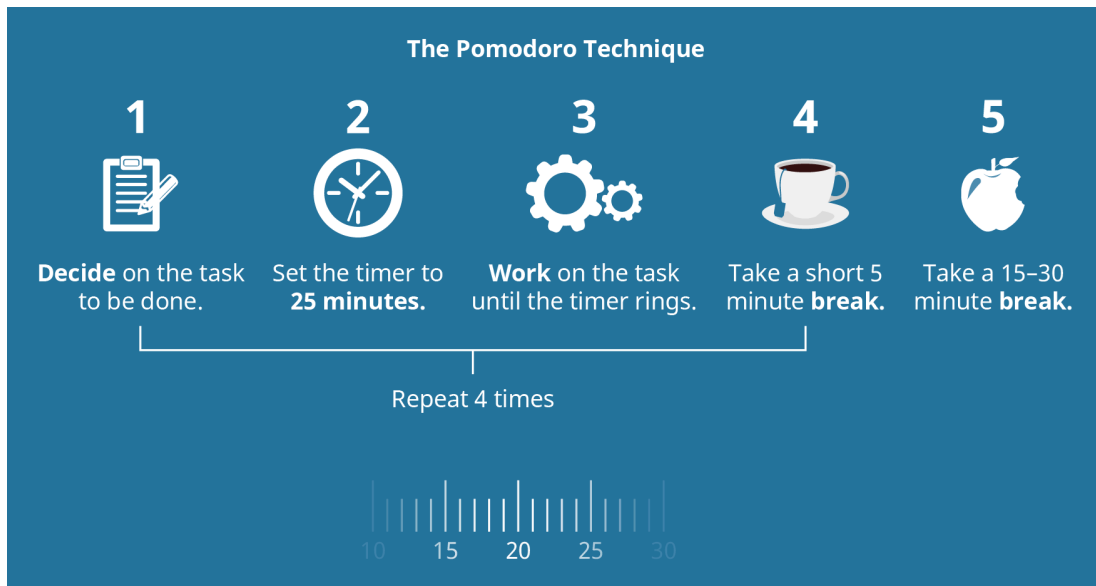
Think about what would be your top three tasks for today? What would you have on the list tomorrow?

2. Pomodoro Technique

The Pomodoro Technique was developed by Francesco Cirillo. The basic concept is to use a timer to set work intervals that are followed by a short break. The intervals are usually about 25 minutes long and are called *pomodoros*, which comes from the Italian word for tomato because Cirillo used a tomato-shaped kitchen timer to keep track of the intervals.

In the original technique there are six steps:

1. Decide on the task to be done.
2. Set the timer to the desired interval.
3. Work on the task.
4. When the timer goes off, put a check mark on a piece of paper.
5. If you have fewer than four check marks, take a short break (3–5 minutes), then go to Step 1 or 2 (whichever is appropriate).
6. After four Pomodoros, take a longer break (15–30 minutes), reset your check mark count to zero, and then go to Step 1 or 2.



The Pomodoro Technique contains five defined steps.

There are several reasons this technique is deemed effective for many people.

- One is the benefit that is derived from quick cycles of work and short breaks. This helps reduce mental fatigue and the lack of productivity caused by it.
- Another is that it tends to encourage you to break tasks down to things that can be completed in about 25 minutes, which is something that is usually manageable from the perspective of time available. It is much easier to squeeze in three 25-minute sessions of work time during the day than it is to set aside a 75-minute block of time.



Reflective Practice

How long do you think you can focus on a single task without letting your mind wander? Would 20 min work better for you? 30? If you are “on a role” while working, do you think you would find it difficult to stop and take the break? Why or why not?

How useful do you think this strategy might be for YOU?

3. Eat the Frog

Of our three quick strategies, *eat the frog* probably has the strangest name and may not sound the most inviting. The name comes from a famous quote, attributed to Mark Twain: “Eat a live frog first thing in the morning and nothing worse will happen to you the rest of the day.” *Eat the Frog* is also the title of a best-selling book by Brian Tracy that deals with time management and avoiding procrastination.

How this applies to time and task management is based on the concept that if a person takes care of the biggest or most unpleasant task first, everything else will be easier after that.

How is this technique useful you may wonder.

- First, we greatly underestimate how much worry can impact our performance. If you are continually distracted by anxiety over a task you are dreading, it can affect the task you are working on at the time.
- Second, not only will you have a sense of accomplishment and relief when the task you are concerned with is finished and out of the way, but other tasks will seem lighter and not as difficult.



Reflective Practice

Which one of these techniques listed above do you think you could implement right away?

Breaking Down the Steps and Spreading Them over Shorter Work Periods

In this section you will read about two more creative techniques that combine elements from the above methods. We have already seen how important it is to estimate how much you can get done in a certain amount of time earlier in this chapter, so once we know that how can we build a schedule to help? The concept behind this strategy is to break tasks into smaller, more manageable units that do not require as much time to complete. Imagine you have a portfolio to create or a presentation to do that you estimate will take 4 hours. Instead of trying to do the entire presentation in one sitting, you break it up into much smaller components as shown in the table below:

Breaking Down Projects into Manageable-Sized Tasks

Day/Time	Task	Time
Monday, 6:00 p.m.	Write outline; look for good sources of research.	60 minutes
Tuesday, 6:00 p.m.	Review references to support outline; look for statistics.	60 minutes
Wednesday, 7:00 p.m.	Create PowerPoint and list main topics on each slide	60 minutes
Thursday, 6:00 p.m.	Add bullet points and pictures to each slide.	60 minutes
Friday, 5:00 p.m.	Rewrite and polish final draft ensuring reference page complete	60 minutes
Saturday, 10:00 a.m.	<i>Only if needed—finish or polish final draft.</i>	60 minutes?

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
8:00–10:00		Work	Study for Business Foundations Quiz	Work	Business Foundations		
10:00–12:00	Accounting	Work	Math	Work	Math	10 a.m.–11 a.m. <i>Only if needed</i>	Work
12:00–2:00	Lunch/study	1 p.m. WRIT	Lunch/study	Accounting	Lunch/study	Work	Work
2:00–4:00	Marketing	Math	Business Foundations	COMMS	Strategies for Success	Work	Cleaning
4:00–6:00	Study for Math quiz.	Grocery	Complete COMMS assignment	Study for History exam.	5 p.m.–6 p.m. Rewrite and polish final draft and reference page	Work	Laundry
6:00–7:00	Write outline; look for good sources of research.	Review research to support outline; look for statistics.	Research presentation project.	Add bullet points and pictures to each slide	Create presentation.	Meet with Darcy.	Prepare school stuff for next week.
7:00–8:00	Gym	Free time	Create PowerPoint and list main points on each slide.	Free time	Create presentation.	Meet with Darcy.	Study for Math Quiz
8:00–11:00	Free time	Gym and movie		Work	Movies	Free time	

While this is a simple example, you can see how it would redistribute tasks to fit your available time in a way that would make completing the paper possible. In fact, if your time constraints were even more rigid, it would be possible to break these divided tasks down even further.

You could use a variation of the Pomodoro Technique and write for three 20-minute segments each day at different times. The key is to look for ways to break down the entire task into smaller steps and spread them out to fit your schedule.



An online calendar is a very useful tool for keeping track of classes, meetings, and other events. Most learning management systems contain these features, or you can use a calendar application.

Analyzing Your Schedule to “Find” Time

What can you accomplish in 5 minutes? Take a moment and make a list.

For example:

- Unload dishwasher
- Fold laundry
- Read instructions for report
- Scan current event highlights
- Review course site for what today’s class is about

Start to pay attention to what you do throughout the day and how much time you spend doing it. The example of waiting for the next thing in your schedule has already been given, but there are many others. How much time do you spend in activities after you have really finished doing them but are still lingering because you have not begun to do something else (e.g., reading social media posts or waiting for someone to reply, surfing the Internet, etc.)? You might be surprised to learn how much time you use up each day by just adding a few unproductive minutes here and there.



Reflective Practice

Identify areas in the way you spend your day where you may be able to recapture and re-purpose time. Are there things you can move around to gain more time? Are there ways you can combine tasks or reduce travel time?



Applying Your Knowledge



An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=476#h5p-12>

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9.8 CAREER CONNECTION

Career Connections

Common Job Questions



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=480#h5p-15>

Prompt questions

1. In the workplace, it is common for your employer to use a calendar system to send meeting invites. There may be an expectation that you share your calendar with others in the organization. In your opinion, what are 2 benefits and 2 risks to having a shared calendar in the workplace? Back up your opinion with at least one piece of research. Cite and reference evidence from the article using APA format to support your opinion.
2. Is the Internet responsible for most of our wasted work time? Read through this article, [Who Wastes the Most Time at Work?](#) What do you think? Cite and reference evidence from the article using APA format to support your opinion.

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9.9 FANSHAWE RESOURCES

Refining your time management skills based on an honest assessment is something that should never stop. The benefits of good time management skills are something that will apply to the rest of your life.

Sometimes, managing everything can become overwhelming and you may benefit from getting some help. There are many resources at Fanshawe who can help you take a step back, evaluate where you are, develop a plan to get you back on track and set you up with some strategies to monitor your progress.



- **Your Professors** – Should be your first point of contact as outlined earlier in this chapter.
- **Academic Advisors** – Can help review your schedule and course load and help you understand the impacts of adding or dropping courses for your program completion.
- **Library Learning Commons** – Offers workshops to help you with study skills including [time management](#).
- **Counselling Services** – Can help you if you are feeling overwhelmed and facilitate conversations with your professors on your behalf.
- **Family, Friends, Residence Life Manager, and Roommates** – Communicate with them regularly to share your challenges and ask for their help in respecting your study time by sharing your schedule with them. Reciprocate and respect their study time. Work with roommates and friends to support each other while studying and then celebrate with a fun study break together.

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9.10 KNOWLEDGE CHECK

This chapter began by pointing out that stress can be reduced and grades improved as a result investing some time, in improving your time management.



Photo by Yan Krukau, Pexels License

- The cost of not investing in developing good time management strategies include: money, an increase in stress, loss of goals, time, and self-esteem which may be difficult to recover from right away.
- Creating a plan to be successful includes: starting early to understanding what your tasks include, accurately estimating the time they will require to complete, creating a plan based on this time estimation, blocking off the time required in smaller chunks, being flexible and having a back up plan if things don't go the way you expected.
- Procrastination, or putting something off, was identified as the biggest obstacles to getting things done. Reasons why we procrastinate include lack of focus, lack of energy and fear of failure, each of which feeds into the other, creating a procrastination cycle.
- *The key components to prioritization are making certain you understand each task and making decisions based on importance, impact, and urgency.*
- The chapter contained several sections on how to effectively manage time (including predicting time on task), how to prioritize tasks and some specific strategies to try like the Pomodoro Technique, Top Three and Eat the Frog.



Option 1

Answer the reflection questions below in full sentences.



An interactive HSP element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=485#h5p-13>

Option 2

Pick at least one of the three strategies discussed in this chapter to try this week (Pomodoro, Eat the Frog, or Top Three) and use it for a full seven days in a row.



An interactive HSP element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=485#h5p-14>



Applying Your Knowledge



An interactive HSP element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=485#h5p-38>

Glossary

Daily Top Three Approach

Eat the Frog

Eisenhower Matrix

Pomodoro Technique

Prioritization

Procrastination

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CHAPTER 10: REMEMBERING WHAT YOU READ

Chapter Outline

[10.0 Introduction](#)

[10.1 Improving Your Memory](#)

[10.2 The Nature and Types of Reading](#)

[10.3 How Do You Read to Learn?](#)

[10.4 Effective Reading Strategies](#)

[10.5 Knowledge Check](#)

10.0 INTRODUCTION

Learning Objectives

After reading this chapter, you should be able to do the following:

- Describe strategies for deciding which course content to learn and retain.
- Differentiate between short-term and long-term memory, and describe the role of each in effective studying.
- Identify memory-strengthening strategies.
- Discuss the way reading differs in college and how to successfully adapt to that change.
- Describe how to allocate enough time for reading by determining your reading speed and pacing and scheduling set times for active reading.
- Explain recursive reading strategies.

10.1 IMPROVING YOUR MEMORY

How Memory Works

Memory is the process of storing and retrieving information. There are two types of memory: short-term or active memory and long-term or passive memory.

“Your self is created by your memories, and your memories are created by your mental habits.”

Rick Warren

Nelson Cowan is one researcher who is working to explain what we do know about memory. His article *What Are the Differences between Long-Term, Short-Term, and Working Memory?* (2008) breaks down the different types of memory and what happens when we recall thoughts and ideas. When we remember something, we actually do quite a lot of thinking.

We go through three basic steps when we remember ideas or images: we encode, store, and retrieve that information.



Encoding is how we first perceive information through our senses, such as when we smell a lovely flower or a putrid trash bin. Both make an impression on our minds through our sense of smell and probably our vision. Our brains encode, or label, this content in short-term memory in case we want to think about it again.

If the information is important and we have frequent exposure to it, the brain will store it for us in case we need to use it in the future in our aptly named long-term memory. Later, the brain will allow us to recall or retrieve that image, feeling, or information so we can do something with it. This is what we call remembering.



Reflective Practice

Take a few minutes to list ways you create memories on a daily basis. Do you think about how you make memories? Do you do anything that helps you keep track of your memories?

Short-term Memory

Short-term or active memory is made up of the information we are processing at any given time. Short-term memory involves information being captured at the moment as well as from information retrieved from our passive memory for doing complex mental tasks, such as thinking critically and drawing conclusions. But short-term memory is limited and suffers from the passing of time and lack of use. We begin to forget data within thirty seconds of not using it, and interruptions, such as phone calls or distractions, require us to rebuild the short term memory structure—to get “back on task.” To keep information in our memory, we must either use it or place it into our long-term memory (much like saving a document on your computer).

Working Memory

Working memory is a type of short-term memory, but we use it when we are actively performing a task. Working memory is more immediate, and reflects our ability to temporarily hold vital information for processing – such as dialing a new telephone number or recalling where you might have just placed your pen. This type of memory is also important for everyday reasoning and decision making.

In working memory, you have access to whatever information you have stored in your memory that helps you complete the task you are performing. For instance, when you begin to study an assignment, you certainly need to read the directions, but you must also remember that in class your professor reduced the number of questions from those included in the assignment package. This was an oral addition to the written assignment. The change to the instructions is what you bring up in working memory when you complete the assignment.

Long-term Memory

Long-term memory is made up the information you know. How we save information to our long-term memory has a lot to do with our ability to retrieve it when we need it at a later date. Our mind “saves” information by creating a complex series of links to the data. The stronger the links, the easier it is to recall. You can strengthen these links by using the following strategies. You should note how closely they are tied to good listening and notetaking strategies.

Video: How does your Memory Work?



One or more interactive elements has been excluded from this version of the text. You can view them online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=387#oembed-1>

Video: “[How does your memory Work? | Head Squeeze](#)” by [BBC Earth Lab](#) [2:40] *Transcript Available.*

Tips for Moving Information from Short-Term to Long-Term Memory

- **Start reviewing new material immediately:** Remember that people typically forget a significant amount of new information not too long after learning it. As a student, you can benefit from starting to study new material right away. If you're introduced to new concepts in class, for example, don't wait to start reviewing your notes and doing the related reading assignments—the sooner the better.
- **Study frequently for shorter periods of time:** Once information becomes a part of long-term memory, you're more likely to remember it. If you want to improve the odds of recalling course material by the time of an exam (or a future class, say), try reviewing it a little bit every day. Building up your knowledge and recall this way can also help you avoid needing to “cram” and feeling overwhelmed by everything you've may have forgotten.
- **Use repetition:** This strategy is linked to studying material frequently for shorter periods of time. You may not remember when or how you learned skills like riding a bike or tying your shoes. Mastery came with practice, and at some point the skills became second nature. Academic learning is no different: If you spend enough time with important course concepts and practice them often, you will know them in the same way you know how to ride a bike—almost without thinking about them.
- **Use visual imagery:** Picture the concept vividly in your mind. Make those images big, bold, and colourful—even silly!
- **Break information down** into manageable “chunks.”
- **Work from general information to the specific:** People usually learn best when they get the big picture first, and then look at the details.
- **Eliminate distractions**
- **Test your memory often:** Try to write down everything you know about a specific subject, from memory. Then go back and check your notes and textbook to see how you did.



Reflective Practice

Jennifer felt anxious about an upcoming exam. This would be her first test in a college class, and she wanted to do well. Jennifer took lots of notes during class and while reading the textbook. In preparation for the exam, she had tried to review all five textbook chapters along with all of her notes. The morning of the exam, Jennifer felt nervous and unprepared. After so much studying and review, why wasn't she more confident? Jennifer's situation shows that there really is such a thing as studying too much. Her mistake was in trying to master *all* of the course material. Whether you take one or more than one class, it's simply impossible to retain every single particle of information you encounter in a textbook or lecture. And, instructors don't generally give open-book exams or allow their students to preview

the quizzes or tests ahead of time. So, how can you decide what to study and “know what to know”? The answer is to prioritize what you’re trying to learn and memorize, rather than trying to tackle all of it. Below are some strategies to help you do this.

- **Think about concepts rather than facts:** From time to time, you’ll need to memorize cold, hard facts—like a list of specific steps of a routine or a vocabulary list in a theory class. Most of the time, instructional materials are developed keeping in mind that you are learning about the key concepts in a subject or course—i.e., how photosynthesis works, how to write a thesis statement, and so on. For example, Jennifer might have been more successful with her studying—and felt better about it—if she had focused on the “big ideas” discussed in class, as opposed to trying to memorize a long list of dates and facts.
- **Take cues from your instructor:** Pay attention to what your instructor writes on the board or includes in study guides and handouts. Although these may be short—just a list of words and phrases, say—they are likely core concepts that you’ll want to focus on. Also, instructors tend to refer to important concepts repeatedly during class, and they may even tell you what’s important to know before an exam or other assessment.
- **Look for key terms:** Textbooks will often put key terms in bold or italics. These terms and their definitions are usually important and can help you remember larger concepts.
- **Use summaries:** Textbooks often have summaries or study guides at the end of each chapter. These summaries are a good way to check in and see whether you grasp the main elements of the reading. If no summary is available, try to write your own—you’ll learn much more by writing about what you read than by reading alone.



Applying Your Knowledge

Identifying the Main Course Content

Objectives

- Describe strategies for deciding which course content to learn and retain

Directions

- Describe several situations in which you struggled to learn and retain new material in a class. Was there a particular type of content that was more challenging compared with others?
- Explain at least two strategies for identifying the main course content that you could use moving forward for studying.

Video: How to Triple your Memory using this Trick



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<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=387#oembed-2>

Video: “[How to triple your memory using this trick](#)” by [TEDx Talks](#) [16:18] *Transcript Available.*

Obstacles to Remembering

If remembering things we need to know for exams or for learning new disciplines were easy, no one would have problems with it, but students face several significant obstacles to remembering, including a persistent lack of sleep and an unrealistic reliance on cramming. Life is busy and stressful for all students, so you have to keep practicing strategies to help you study and remember successfully, but you also must be mindful of obstacles to remembering.

- Lack of sleep
- Cramming a load of information into your short-term memory
- Stress
- Individual Needs / Developmental Differences

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10.2 THE NATURE AND TYPES OF READING



Each of us reads and records information in our own way.



As a Registered Practical Nurse, I am required to read charts for the multiple patients that are in my care at a time and recall each unique case to ensure the safety and comfort of each patient I am caring for.

Mackenzie Metcalf, RPN

The Skill of Reading for Success

In this section we will explore one of the skills you probably think you already understand—reading. The goal is to make sure you’ve honed this skill well enough to lead you to success in college.

Reading and consuming information are increasingly important today because of the amount of information we encounter. Not only do we need to read critically and carefully, but we also need to read with an eye to distinguishing fact from opinion and identifying solid sources. Reading helps us make sense of the world—from simple reminders to pick up milk to complex treatises on global concerns, we read to comprehend, and in so doing, our brains expand. An interesting study from Emory University in Atlanta, Georgia, used MRI scans to track the brain conductivity while participants were reading. The researchers assert that a biological change to your brain actually happens when you read, and it lingers. If you want to read the study, published in the journal *Brain Connectivity*, you can find it online at [Short and Long Term Effect of a Novel on Connectivity in the Brain](#).

In academic settings, as we deliberately work to become stronger readers and better notetakers, we are both helping our current situation and enhancing our abilities to be successful in the future. Seems like a win-win. Take advantage of all the study aids you have at hand, including human, electronic, and physical resources, to increase your performance in these crucial skill sets.

Why? You need to read. It improves your thinking, your vocabulary, and your ability to make connections between disparate parts, which are all parts of critical thinking. Educational researchers Anne Cunningham and Keith Stanovich discovered after extensive study with college students that “reading volume [how much you read] made a significant contribution to multiple measures of vocabulary, general knowledge, spelling, and verbal fluency.”

Research continues to assess and support the fact that one of the most significant learning skills necessary for success in any field is reading. You may have performed this skill for decades already, but learning to do it more effectively and practicing the skill consistently is critical to how well you do in all subjects. If reading *isn't your thing*, strive to make that your challenge. Your academic journey, your personal well-being, and your professional endeavours will all benefit from your reading. Put forth the effort and make it your thing. The long-term benefits will far outweigh the sacrifices you make now.

Research also supports the idea that reading is good for you. Students who read at or above reading level throughout elementary and secondary school have a higher chance of starting—and more importantly, finishing—college. Educational researchers convincingly claim that reading improves everything from grades to vocabulary (Cunningham & Stanovich, 1998).

If you don't particularly enjoy reading, don't despair. We read for a variety of reasons, and you may just have to step back and take a bigger picture of your reading habits to understand why you avoid engaging in this important skill. The myriad distractions we now face as well as the intense information overload we can suffer on a daily basis in all aspects of our lives can combine to make it difficult to slow down to read, an activity that demands at least a modicum of attention in a way that most television and music do not. You may need to adjust your schedule for more reading time, especially in college, because every class you take will expect you to read more pages than you probably have in the past.

Types of Reading

We may read small items purely for immediate information, such as notes, e-mails, or directions to an unfamiliar location. You can find all sorts of information online about how to fix a faucet or tie a secure knot. You won't have to spend too much time reading these sorts of texts because you have a specific goal in mind for them, and once you have accomplished that goal, you do not need to prolong the reading experience. These encounters with texts may not be memorable or stunning, but they don't need to be. When we consider why we read longer pieces—outside of reading for pleasure—we can usually categorize the reasons into about two categories: 1) reading to introduce ourselves to new content, and 2) reading to more fully comprehend familiar content.



A bookstore or library can be a great place to explore. Aside from books and resources you need, you may find something that interests you or helps with your course work.

Reading to Introduce New Content

Glenn felt uncomfortable talking with his new roommates because he realized very quickly that he didn't know anything about their major—architecture. Of course he knew that it had something to do with buildings and construction sites, but the field was so different from his discipline of biology that he decided he needed to find out more so he could at least engage in friendly conversation with his roommates. Since he would likely not go into their field, he didn't need to go into full research mode. When we read to introduce new content, we can start off small and increase to better and more sophisticated sources. Much of our further study and reading depends on the sources we originally read, our purpose for finding out about this new topic, and our interest level.

Chances are, you have done this sort of exploratory reading before. You may read reviews of a new restaurant or look at what people say about a movie you aren't sure you want to spend the money to see at the theatre. This reading helps you decide. In academic settings, much of what you read in your courses may be relatively new content to you. You may have heard the word *volcano* and have a general notion of what it means, but until you study geology and other sciences in depth, you may not have a full understanding of the environmental origins, ecological impacts, and societal and historic responses to volcanoes. These perspectives will come from reading and digesting various material. When you are working with new content, you may need to schedule more time for reading and comprehending the information because you may need to look up unfamiliar terminology and you may have to stop more frequently to make sure you are truly grasping what the material means. When you have few ways to connect new material to your own prior knowledge, you have to work more diligently to comprehend it.



Reflective Practice

Try an experiment with a group of classmates. Without looking on the Internet, try to brainstorm a list of 10 topics about which all of you may be interested but for which you know very little or nothing at all. Try to make the topics somewhat obscure rather than ordinary—for example, the possibility of the non-planet Pluto being reclassified again as opposed to something like why we need to drink water.

After you have this random list, think of ways you could find information to read about these weird topics. Our short answer is always: Google. But think of other ways as well. How else could you read about these topics if you don't know anything about them? You may well be in a similar circumstance in some of your college classes, so you should listen carefully to your classmates on this one. Think beyond pat answers such as "I'd go to the library," and press for what that researcher would do once at the library. What types of articles or books would you try to find? One reason that you should not always ignore the idea of doing research at the physical library is because once you are there and looking for information, you have a vast number of other sources readily available to you in a highly organized location. You also can tap into the human resources represented by the research librarians who likely can redirect you if you cannot find appropriate sources.

Reading to Comprehend Familiar Content

Reading about unfamiliar content is one thing, but what if you do know something about a topic already? Do you really still need to keep reading about it? Probably. For example, what if during the brainstorming activity in the previous section, you secretly felt rather smug because you know about the demotion of the one-time planet Pluto and that there is currently quite the scientific debate going on about that whole de-planet-ation thing. Of course, you didn't say anything during the study session, mostly to spare your classmates any embarrassment, but you are pretty familiar with Pluto-gate. So now what? Can you learn anything new?

Again—probably. When did Pluto's qualifications to be considered a planet come into question? What are the qualifications for being considered a planet? Why? Who even gets to decide these things? Why was it called *Pluto* in the first place? On Amazon alone, you can find hundreds of books about the once-planet Pluto (not to be confused with the Disney dog also named Pluto). A Google search brings up over 34 million options for your reading pleasure. You'll have plenty to read, even if you do know something or quite a bit about a topic, but you'll approach reading about a familiar topic and an unfamiliar one differently.

With familiar content, you can do some initial skimming to determine what you already know in the book or article, and mark what may be new information or a different perspective. You may not have to give your full attention to the information you know, but you will spend more time on the new viewpoints so you can determine how this new data meshes with what you already know. Is this writer claiming a radical new definition for the topic or an entirely opposite way to consider the subject matter, connecting it to other topics or disciplines in ways you have never considered?

When college students encounter material in a discipline-specific context and have some familiarity with the topic, they sometimes can allow themselves to become a bit overconfident about their knowledge level. Just because a student may have read an article or two or may have seen a TV documentary on a subject such as the criminal mind, that does not make them an expert. What makes an expert is a person who thoroughly studies a subject, usually for years, and understands all the possible perspectives of a subject as well as the potential for misunderstanding due to personal biases and the availability of false information about the topic.

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10.3 HOW DO YOU READ TO LEARN?



Getting Started

Ask yourself the following questions:

- Are you able to read material to identifying the important information that you can use to complete tasks?
- How do you stay focused when faced with the large amount of reading required in college?
- Can you process information better if you read it online or on paper in your hand?
- When can you focus better—morning, afternoon, evening?
- Can you adapt your reading based on what you will need to do with the information you read?
- Do you schedule blocks of time to read based on the material you are reading?

Active Reading

Active reading is defined as a planned, deliberate set of strategies to engage with text-based materials with the purpose of increasing your understanding.

In college, most professors do not spend much time reviewing the reading assignment in class. Rather, they expect that you have done the reading assignment before coming to class and understand the material. The class lecture or discussion is often based on that expectation. Tests, too, are based on that expectation.

This is why active reading is so important, it's up to you to do the reading and comprehend what you read.

How Do You Read to Learn?

The four steps of active reading are almost identical to the four phases of the learning cycle—and that is no coincidence! Active reading is learning through reading the written word, so the learning cycle naturally applies.

Active reading involves these steps:

1. Preparing
2. Reading
3. Capturing the key ideas
4. Reviewing

1. Preparing to Read



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Consider the textbook/article/assignment

Start by thinking about why your professor has chosen this text. Look at the table of contents; how does it compare with the course syllabus?

Scan the chapter

Explore the chapter by scanning the pages of the chapter to get a sense of what the chapter is about. Look at the headings, illustrations and tables. Read the introduction and summary. Understanding the big picture of the chapter will help you add the details when doing close reading.

Identify your purpose

Give yourself direction by creating a purpose or quest for your reading. This will help you become more actively engaged in your reading. Create questions to find the answers to in your reading using the headings of each section. You may also have learning objectives listed at the front of each chapter which could be turned into questions or you may have chapter review questions prepared for you at the end of the chapter.

2. Reading

Take the first question you have prepared and think about what you already know about this question. Jot the question down on paper. Begin to read the chapter and stop when you have found the answer.

Write down the answer in short form. Leave some space for additional notes you may want to add later and add the next question. Continue reading this way until you are done the chapter or are done studying for this session.

3. Capturing the key ideas

Before you put away your textbook and notes at the end of a reading session, go back through the questions you answered and pull out key ideas and words. You can highlight these, jot them in the space you left below your answer or note them in the margins.

4. Reviewing what you read

For each question, cover up the answer and key ideas you have written. Can you still answer the question? Check your mental review against what you have written.



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Additional Reading Tips

The four steps to active reading provide a proven approach to effective learning from texts. Following are some tips you can use to enhance your reading even further:

Use the tool. If you know you can understand better if you read something on paper, then print out important assignments so you can add questions, make notes, highlight important parts, etc.

Pace yourself. Figure out how much time you have to complete the reading assignment. Divide the assignment into smaller blocks rather than trying to read the entire assignment in one sitting.

Schedule your reading. Set aside blocks of time, preferably at the time of the day when you are most alert, to do your reading assignments. Read your most difficult assignments early in your reading time, when you are freshest.

Get yourself in the right space. Choose to read in a quiet, well-lit space. Your chair should be comfortable but provide good support.

Avoid distractions. Active reading takes place in your short-term memory. Every time you move from task to task, you have to “reboot” your short-term memory and you lose the continuity of active reading.

Avoid reading fatigue. Work for about fifty minutes, and then give yourself a break for five to ten minutes. Put down the book, walk around, get a snack, stretch, or do some deep knee bends. Short physical activity will do wonders to help you feel refreshed.

Make your reading interesting. Try connecting the material you are reading with your class lectures or with other



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chapters. Ask yourself where you disagree with the author. Approach finding answers to your questions like an investigative reporter. Carry on a mental conversation with the author.



Applying Your Knowledge



An interactive H5P element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=561#h5p-22>

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10.4 EFFECTIVE READING STRATEGIES



If you plan to make time for reading while you commute, remember that unexpected events like delays and cancellations could impact your concentration.

Allowing Adequate Time for Reading

You should determine the reading requirements and expectations for every class very early in the semester. You also need to understand why you are reading the particular text you are assigned. Do you need to read closely for minute details that determine cause and effect? Or is your instructor asking you to skim several sources so you become more familiar with the topic? Knowing this reasoning will help you decide your timing, what notes to take, and how best to undertake the reading assignment.

Depending on the makeup of your schedule, you may end up reading both primary sources—such as legal documents, historic letters, or diaries—as well as textbooks, articles, and secondary sources, such as summaries or argumentative essays that use primary sources to stake a claim. You may also need to read current journalistic texts to stay current in local or global affairs. A realistic approach to scheduling your time to allow you to read and review all the reading you have for the semester will help you accomplish what can sometimes seem like an overwhelming task.

When you allow adequate time in your hectic schedule for reading, you are investing in your own success. Reading isn't a magic pill, but it may seem like it when you consider all the benefits people reap from this ordinary practice. Famous successful people throughout history have been voracious readers. In fact, former U.S. president Harry Truman once said, "Not all readers are leaders,

but all leaders are readers.” Writer of the U.S. Declaration of Independence, inventor, and also former U.S. president Thomas Jefferson claimed “I cannot live without books” at a time when keeping and reading books was an expensive pastime. Knowing what it meant to be kept from the joys of reading, 19th-century abolitionist Frederick Douglass said, “Once you learn to read, you will be forever free.” And finally, George R. R. Martin, the prolific author of the wildly successful *Game of Thrones* empire, declared, “A reader lives a thousand lives before he dies . . . The man who never reads lives only one.”

You can make time for reading in a number of ways that include determining your usual reading pace and speed, scheduling active reading sessions, and practicing recursive reading strategies.

Determining Reading Speed and Pacing

To determine your reading speed, select a section of text—passages in a textbook or pages in a novel. Time yourself reading that material for exactly 5 minutes, and note how much reading you accomplished in those 5 minutes. Multiply the amount of reading you accomplished in 5 minutes by 12 to determine your average reading pace (5 times 12 equals the 60 minutes of an hour). Of course, your reading pace will be different and take longer if you are taking notes while you read, but this calculation of reading pace gives you a good way to estimate your reading speed that you can adapt to other forms of reading.

Example Reading Times

Reader	Pages Read in 5 Minutes	Pages per Hour	Approximate Hours to Read 500 Pages
Marta	4	48	10 hours, 30 minutes
Jordi	3	36	13 hours
Estevan	5	60	8 hours, 20 minutes

So, for instance, if Marta was able to read 4 pages of a dense novel for her English class in 5 minutes, she should be able to read about 48 pages in one hour. Knowing this, Marta can accurately determine how much time she needs to devote to finishing the novel within a set amount of time, instead of just guessing. If the novel Marta is reading is 497 pages, then Marta would take the total page count (497) and divide that by her hourly reading rate (48 pages/hour) to determine that she needs about 10 to 11 hours overall. To finish the novel spread out over two weeks, Marta needs to read a little under an hour a day to accomplish this goal.

Calculating your reading rate in this manner does not take into account days where you’re too distracted and you have to reread passages or days when you just aren’t in the mood to read. And your reading rate will likely vary depending on how dense the content you’re reading is (e.g., a complex textbook vs. a comic book). Your pace may slow down somewhat if you are not very interested in what the text is about. What this method *will* help you do is be realistic about your reading time as opposed to waging a guess based on nothing and then becoming worried when you have far more reading to finish than the time available.

Scheduling Set Times for Active Reading

Active reading takes longer than reading through passages without stopping. You may not need to read your latest sci-fi series actively while you’re lounging on the beach, but many other reading situations demand more attention from you. Active reading is particularly important for college courses. You are a scholar actively engaging with the text by posing questions, seeking answers, and clarifying any confusing elements. Plan to spend at least twice as long to read actively than to read passages without taking notes or otherwise marking select elements of the text.

To determine the time you need for active reading, use the same calculations you use to determine your traditional reading speed and double it. Remember that you need to determine your reading pace for all the classes you have in a particular semester and multiply your speed by the number of classes you have that require different types of reading.

Example Active Reading Times				
Reader	Pages Read in 5 Minutes	Pages per Hour	Approximate Hours to Read 500 Pages	Approximate Hours to Actively Read 500 Pages
Marta	4	48	10 hours, 30 minutes	21 hours
Jordi	3	36	13 hours	26 hours
Estevan	5	60	8 hours, 20 minutes	16 hours, 40 minutes

Practising Recursive Reading Strategies

One fact about reading for college courses that may become frustrating is that, in a way, it never ends. For all the reading you do, you end up doing even more rereading. It may be the same content, but you may be reading the passage more than once to detect the emphasis the writer places on one aspect of the topic or how frequently the writer dismisses a significant counterargument. This rereading is called recursive reading.

For most of what you read at the college level, you are trying to make sense of the text for a specific purpose—not just because the topic interests or entertains you. You need your full attention to decipher everything that’s going on in complex reading material—and you even need to be considering what the writer of the piece may *not* be including and why. This is why reading for comprehension is recursive.

Specifically, this boils down to seeing reading not as a formula but as a process that is far more circular than linear. You may read a selection from beginning to end, which is an excellent starting point, but for comprehension, you’ll need to go back and reread passages to determine meaning and make connections between the reading and the bigger learning environment that led you to the selection—that may be a single course or a program in your college, or it may be the larger discipline, such as all biologists or the community of scholars studying beach erosion.

People often say writing is rewriting. For college courses, reading is rereading.

Strong readers engage in numerous steps, sometimes combining more than one step simultaneously, but knowing the steps nonetheless. They include, not always in this order:

- Bringing any prior knowledge about the topic to the reading session,
- Asking yourself pertinent questions, both orally and in writing, about the content you are reading,
- Inferring and/or implying information from what you read,
- Learning unfamiliar discipline-specific terms,
- Evaluating what you are reading, and eventually,
- Applying what you’re reading to other learning and life situations you encounter.

Let’s break these steps into manageable chunks, because you are actually doing quite a lot when you read.



The six elements of recursive reading should be considered as a circular, not linear, process.

Accessing Prior Knowledge

When you read, you naturally think of anything else you may know about the topic, but when you read deliberately and actively, you make yourself more aware of accessing this prior knowledge. Have you ever watched a documentary about this topic? Did you study some aspect of it in another class? Do you have a hobby that is somehow connected to this material? All of this thinking will help you make sense of what you are reading.



Reflective Practice

Imagining that you were given a chapter to read in your Human Anatomy about the Reproductive System, write down what you already know about this system. How might thinking through this prior knowledge help you better understand the text?

Asking Questions

Humans are naturally curious beings. As you read actively, you should be asking questions about the topic you are reading. Don't just say the questions in your mind; write them down. You may ask: Why is this topic important? What is the relevance of this topic currently? Was this topic important a long time ago but irrelevant now? Why did my professor assign this reading?

You need a place where you can actually write down these questions; a separate page in your notes is a good place to begin. If you are taking notes on your computer, start a new document and write down the questions. Leave some room to answer the questions when you begin and again after you read.

Inferring and Implying

When you read, you can take the information on the page and **infer**, or conclude responses to related challenges from evidence or from your own reasoning. A student will likely be able to infer what material the professor will include on an exam by taking good notes throughout the classes leading up to the test.

Writers may **imply** information without directly stating a fact for a variety of reasons. Sometimes a writer may not want to come out explicitly and state a bias, but may imply or hint at his or her preference for one political party or another. You have to read carefully to find implications because they are indirect, but watching for them will help you comprehend the whole meaning of a passage.

Learning Vocabulary

Vocabulary specific to certain disciplines helps practitioners in that field engage and communicate with each other. Few people beyond undertakers and archeologists likely use the term *sarcophagus* in everyday communications, but for those disciplines, it is a meaningful distinction. Looking at the example, you can use context clues to figure out the meaning of the term *sarcophagus* because it is something undertakers and/or archeologists would recognize. At the very least, you can guess that it has something to do with death. As a potential professional in the field you're studying, you need to know the lingo. You may already have a system in place to learn discipline-specific vocabulary, so use what you know works for you. Two strong strategies are to look up words in a dictionary (online or hard copy) to ensure you have the exact meaning for your discipline and to keep a dedicated list of words you see often in your reading. You can list the words with a short definition so you have a quick reference guide to help you learn the vocabulary.

Evaluating

Intelligent people always question and evaluate. This doesn't mean they don't trust others; they just need verification of facts to understand a topic well. It doesn't make sense to learn incomplete or incorrect information about a subject just because you didn't take the time to evaluate all the sources at your disposal. When early explorers were afraid to sail the world for fear of falling off the edge, they weren't stupid; they just didn't have all the necessary data to evaluate the situation.

When you evaluate a text, you are seeking to understand the presented topic. Depending on how long the text is, you will perform a number of steps and repeat many of these steps to evaluate all the elements the author presents. When you evaluate a text, you need to do the following:

- Scan the title and all headings.
- Read through the entire passage fully.
- Question what main point the author is making.
- Decide who the audience is.
- Identify what evidence/support the author uses.
- Consider if the author presents a balanced perspective on the main point.
- Recognize if the author introduced any biases in the text.

When you go through a text looking for each of these elements, you need to go beyond just answering the surface question; for instance, the audience may be a specific field of scientists, but could anyone else understand the text with some explanation? Why would that be important?



Reflective Practice

Think of an article you need to read for a class. Take the steps above on how to evaluate a text, and apply the steps to the article. When you accomplish the task in each step, ask yourself and take notes to answer the question: Why is this important? For example, when you read the title, does that give you any additional information that will help you comprehend the text? If the text were written for a different audience, what might the author need to change to accommodate that group? How does an author's bias distort an argument? This deep evaluation allows you to fully understand the main ideas and place the text in context with other material on the same subject, with current events, and within the discipline.

Applying

When you learn something new, it always connects to other knowledge you already have. One challenge we have is applying new information. It may be interesting to know the distance to the moon, but how do we apply it to something we need to do? If your biology instructor asked you to list several challenges of colonizing Mars and you do not know much about that planet's exploration, you may be able to use your knowledge of how far Earth is from the moon to apply it to the new task. You may have to read several other texts in addition to reading graphs and charts to find this information.

That was the challenge the early space explorers faced along with myriad unknowns before space travel was a more regular occurrence. They had to take what they already knew and could study and read about and apply it to an unknown situation. These explorers wrote down their challenges, failures, and successes, and now scientists read those texts as a part of the ever-growing body of text about space travel. Application is a sophisticated level of thinking that helps turn theory into practice and challenges into successes.

Preparing to Read for Specific Disciplines in College

Different disciplines in college may have specific expectations, but you can depend on all subjects asking you to read to some degree. In this college reading requirement, you can succeed by learning to read actively, researching the topic and author, and recognizing how your own preconceived notions affect your reading. Reading for college isn't the same as reading for pleasure or even just reading to learn something on your own because you are casually interested.

In college courses, your instructor may ask you to read articles, chapters, books, or **primary sources** (those original documents about which we write and study, such as letters between historic figures or the Declaration of Independence). Your instructor may want you to have a general background on a topic before you dive into that subject in class, so that you know the history of a topic, can start thinking about it, and can engage in a class discussion with more than a passing knowledge of the issue.

If you are about to participate in an in-depth six-week consideration of the U.S. Constitution but have never read it or anything written about it, you will have a hard time looking at anything in detail or understanding how and why it is significant. As you can imagine, a great deal has been written about the Constitution by scholars and citizens since the late 1700s when it was first put to paper (that's how they did it then). While the actual document isn't that long (about 12–15 pages depending on how it is presented), learning the details on how it came about, who was involved, and why it was and still is a significant document would take a considerable amount of time to read and digest. So, how do you do it all? Especially when you may have an instructor who drops hints that you may also *love* to read a historic novel covering the same time period . . . in your *spare time*, not required, of course! It can be daunting, especially if you are taking more than one course that has time-consuming reading lists. With a few strategic techniques, you can manage it all, but know that you must have a plan and schedule your required reading so you *are* also able to pick up that recommended historic novel—it may give you an entirely new perspective on the issue.

Strategies for Reading in College Disciplines

No universal law exists for how much reading instructors and institutions expect college students to undertake for various disciplines. Suffice it to say, it's a LOT.

For most students, it is the volume of reading that catches them most off guard when they begin their college careers. A full course load might require 10–15 hours of reading per week, some of that covering content that will be more difficult than the reading for other courses.

You cannot possibly read word-for-word every single document you need to read for all your classes. That doesn't mean you give up or decide to only read for your favourite classes or concoct a scheme to read 17 percent for each class and see how that works for you. You need to learn to skim, annotate, and take notes. All of these techniques will help you comprehend more of what you read, which is why we read in the first place. We'll talk more later about annotating and notetaking, but for now consider what you know about skimming as opposed to active reading.

Skimming

Skimming is not just glancing over the words on a page (or screen) to see if any of it sticks. Effective skimming allows you to take in the major points of a passage without the need for a time-consuming reading session that involves your active use of notations

and annotations. Often you will need to engage in that painstaking level of active reading, but skimming is the first step—not an alternative to deep reading. The fact remains that neither do you need to read everything nor could you possibly accomplish that given your limited time. So learn this valuable skill of skimming as an accompaniment to your overall study tool kit, and with practice and experience, you will fully understand how valuable it is.

When you skim, look for guides to your understanding: headings, definitions, pull quotes, tables, and context clues. Textbooks are often helpful for skimming—they may already have made some of these skimming guides in bold or a different colour, and chapters often follow a predictable outline. Some even provide an overview and summary for sections or chapters. Use whatever you can get, but don't stop there. In textbooks that have some reading guides, or especially in text that does not, look for introductory words such as *First* or *The purpose of this article . . .* or summary words such as *In conclusion . . .* or *Finally*. These guides will help you read only those sentences or paragraphs that will give you the overall meaning or gist of a passage or book.

Now move to the meat of the passage. You want to take in the reading as a whole. For a book, look at the titles of each chapter if available. Read each chapter's introductory paragraph and determine why the writer chose this particular order. Depending on what you're reading, the chapters may be only informational, but often you're looking for a specific argument. What position is the writer claiming? What support, counterarguments, and conclusions is the writer presenting?

Don't think of skimming as a way to buzz through a boring reading assignment. It is a skill you should master so you can engage, at various levels, with all the reading you need to accomplish in college. End your skimming session with a few notes—terms to look up, questions you still have, and an overall summary. And recognize that you likely will return to that book or article for a more thorough reading if the material is useful.

Active Reading Strategies

Active reading differs significantly from skimming or reading for pleasure. You can think of active reading as a sort of conversation between you and the text (maybe between you and the author, but you don't want to get the author's personality too involved in this metaphor because that may skew your engagement with the text).

When you sit down to determine what your different classes expect you to read and you create a reading schedule to ensure you complete all the reading, think about when you should read the material strategically, not just how to *get it all done*. You should read textbook chapters and other reading assignments *before* you go into a lecture about that information. Don't wait to see how the lecture goes before you read the material, or you may not understand the information in the lecture. Reading before class helps you put ideas together between your reading and the information you hear and discuss in class.

Different disciplines naturally have different types of texts, and you need to take this into account when you schedule your time for reading class material. For example, you may look at a poem for your world literature class and assume that it will not take you long to read because it is relatively short compared to the dense textbook you have for your economics class. But reading and understanding a poem can take a considerable amount of time when you realize you may need to stop numerous times to review the separate word meanings and how the words form images and connections throughout the poem.

The SQ3R Reading Strategy

You may have heard of the **SQ3R** method for active reading in your early education. This valuable technique is perfect for college reading. The title stands for **S**urvey, **Q**uestion, **R**ead, **R**ecite, **R**eview, and you can use the steps on virtually any assigned passage. Designed by Francis Pleasant Robinson in his 1961 book *Effective Study*, the active reading strategy gives readers a systematic way to work through any reading material.

Survey 1.0, 0.0, 0.0 **Question** 1.0, 0.0, 0.0 **Read** 1.0, 0.0, 0.0 **Recite** 1.0, 0.0, 0.0 **Review** 1.0, 0.0, 0.0

Survey is similar to skimming. You look for clues to meaning by reading the titles, headings, introductions, summary,

captions for graphics, and keywords. You can survey almost anything connected to the reading selection, including the copyright information, the date of the journal article, or the names and qualifications of the author(s). In this step, you decide what the general meaning is for the reading selection.

rgb]1.0, 0.0, 0.0Q*rgb*]1.0, 0.0, 0.0**uestion**

Question is your creation of questions to seek the main ideas, support, examples, and conclusions of the reading selection. Ask yourself these questions separately. Try to create valid questions about what you are about to read that have come into your mind as you engaged in the Survey step. Try turning the headings of the sections in the chapter into questions. Next, how does what you're reading relate to you, your school, your community, and the world?

rgb]1.0, 0.0, 0.0R*rgb*]1.0, 0.0, 0.0**ead**

Read is when you actually read the passage. Try to find the answers to questions you developed in the previous step. Decide how much you are reading in chunks, either by paragraph for more complex readings or by section or even by an entire chapter. When you finish reading the selection, stop to make notes. Answer the questions by writing a note in the margin or other white space of the text.

You may also carefully underline or highlight text in addition to your notes. Use caution here that you don't try to rush this step by haphazardly circling terms or the other extreme of underlining huge chunks of text. Don't over-mark. You aren't likely to remember what these cryptic marks mean later when you come back to use this active reading session to study. The text is the source of information—your marks and notes are just a way to organize and make sense of that information.

rgb]1.0, 0.0, 0.0R*rgb*]1.0, 0.0, 0.0**ecite**

Recite means to speak out loud. By reciting, you are engaging other senses to remember the material—you read it (visual) and you said it (auditory). Stop reading momentarily in the step to answer your questions or clarify confusing sentences or paragraphs. You can recite a summary of what the text means to you. If you are not in a place where you can verbalize, such as a library or classroom, you can accomplish this step adequately by *saying* it in your head; however, to get the biggest bang for your buck, try to find a place where you can speak aloud. You may even want to try explaining the content to a friend.

rgb]1.0, 0.0, 0.0R*rgb*]1.0, 0.0, 0.0**eview**

Review is a recap. Go back over what you read and add more notes, ensuring you have captured the main points of the passage, identified the supporting evidence and examples, and understood the overall meaning. You may need to repeat some or all of the SQR3 steps during your review depending on the length and complexity of the material. Before you end your active reading session, write a short (no more than one page is optimal) summary of the text you read.

Reading Primary and Secondary Sources

Primary sources are original documents we study and from which we glean information; primary sources include letters, first editions of books, legal documents, and a variety of other texts. When scholars look at these documents to understand a period in history or a scientific challenge and then write about their findings, the scholar's article is considered a secondary source. Readers have to keep several factors in mind when reading both primary and secondary sources.

Primary sources may contain dated material we now know is inaccurate. It may contain personal beliefs and biases the original

writer didn't intend to be openly published, and it may even present fanciful or creative ideas that do not support current knowledge. Readers can still gain great insight from primary sources, but readers need to understand the context from which the writer of the primary source wrote the text.

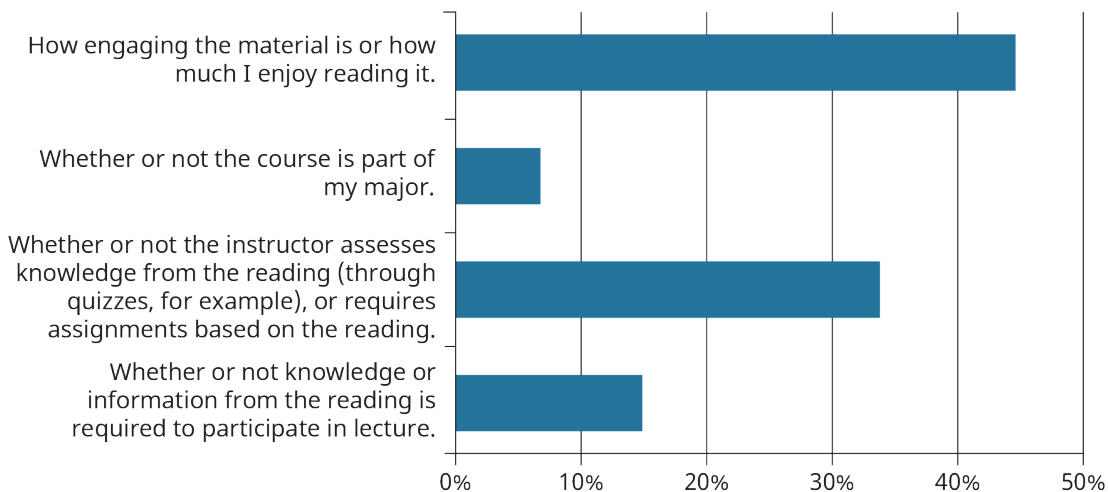
Likewise, secondary sources are inevitably another person's perspective on the primary source, so a reader of secondary sources must also be aware of potential biases or preferences the secondary source writer inserts in the writing that may persuade an incautious reader to interpret the primary source in a particular manner.

For example, if you were to read a secondary source that is examining the U.S. Declaration of Independence (the primary source), you would have a much clearer idea of how the secondary source scholar presented the information from the primary source if you also read the Declaration for yourself instead of trusting the other writer's interpretation. Most scholars are honest in writing secondary sources, but you as a reader of the source are trusting the writer to present a balanced perspective of the primary source. When possible, you should attempt to read a primary source in conjunction with the secondary source. The Internet helps immensely with this practice.

What Students Say

Question 1: What is the most influential factor in how thoroughly you read the material for a given course?

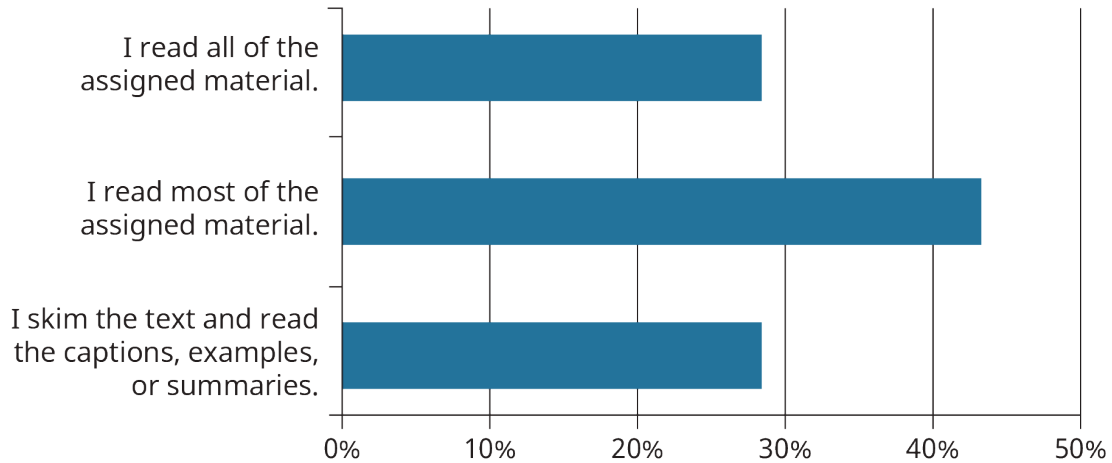
- How engaging the material is or how much I enjoy reading it.
- Whether or not the course is part of my major.
- Whether or not the instructor assesses knowledge from the reading (through quizzes, for example), or requires assignments based on the reading.
- Whether or not knowledge or information from the reading is required to participate in lecture.



Question 2: What best describes your reading approach for required texts/materials for your classes?

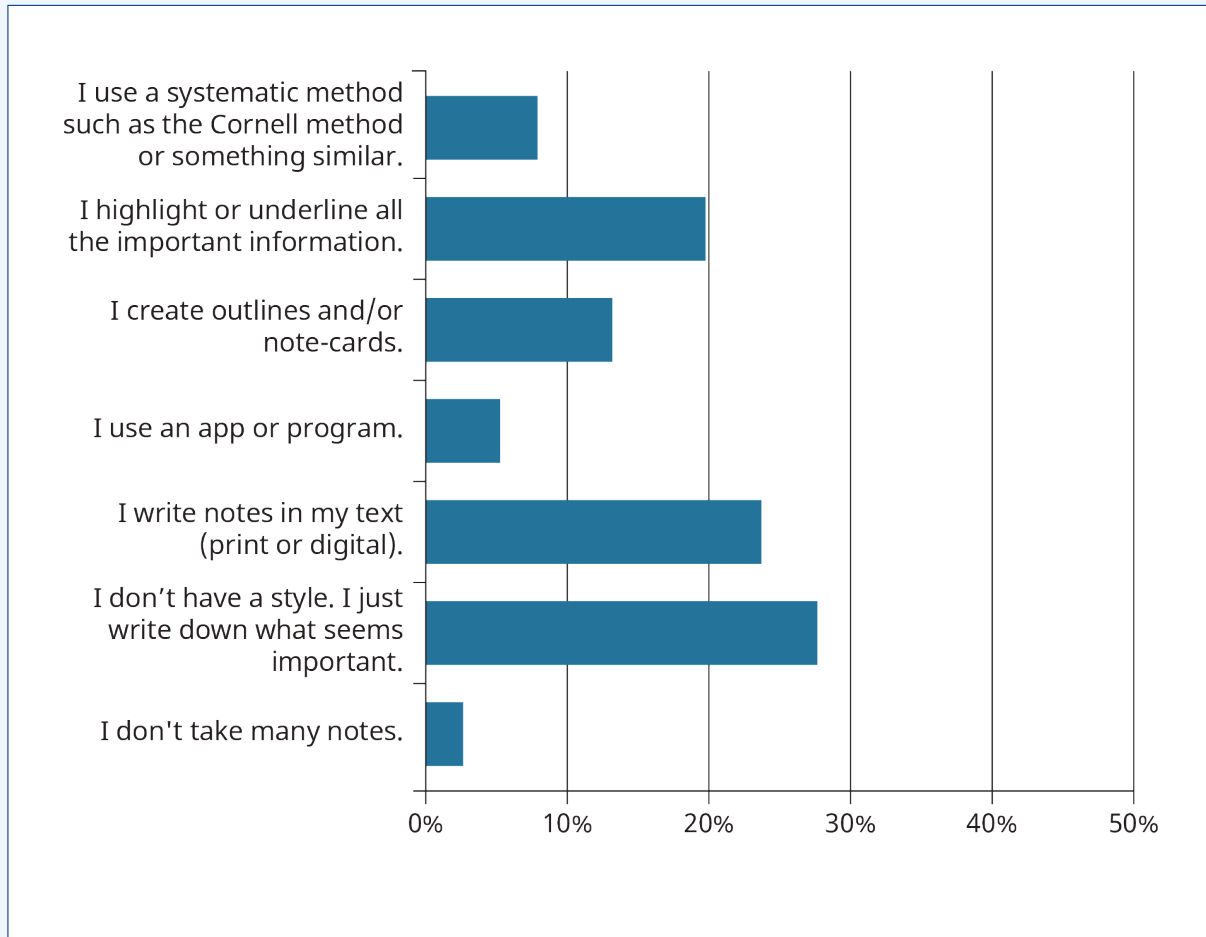
- I read all of the assigned material.

- b. I read most of the assigned material.
- c. I skim the text and read the captions, examples, or summaries.



Question 3: What best describes your notetaking style?

- a. I use a systematic method such as the Cornell method or something similar.
- b. I highlight or underline all the important information.
- c. I create outlines and/or note-cards.
- d. I use an app or program.
- e. I write notes in my text (print or digital).
- f. I don't have a style. I just write down what seems important.
- g. I don't take many notes.



Researching Topic and Author

During your preview stage, sometimes called pre-reading, you can easily pick up on information from various sources that may help you understand the material you're reading more fully or place it in context with other important works in the discipline. If your selection is a book, flip it over or turn to the back pages and look for an author's biography or note from the author. See if the book itself contains any other information about the author or the subject matter.

The main things you need to recall from your reading in college are the topics covered and how the information fits into the discipline. You can find these parts throughout the textbook chapter in the form of headings in larger and bold font, summary lists, and important quotations pulled out of the narrative. Use these features as you read to help you determine what the most important ideas are.

With every reading situation about the environment, Laura needs to remain open-minded about what she is about to read and pay careful attention if she begins to ignore certain parts of the text because of her preconceived notions. Learning new information can be very difficult if you balk at ideas that are different from what you've always thought. You may have to force yourself to listen to a different viewpoint multiple times to make sure you are not closing your mind to a viable solution your mindset does not currently allow.



Reflective Practice

Can you think of times you have struggled reading college content for a course? Which of these strategies might have helped you understand the content? Why do you think those strategies would work?

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10.5 KNOWLEDGE CHECK

Working memory is like a temporary sticky note in the brain, and people who learn and think differently often struggle with working memory. Short-term memory holds a limited amount of information that you process at one time, but it is temporary; long-term memory stores information by creating complex linkages that helps you recall important information at a later time. Moving information from short-term to long-term memory takes deliberate action on your part.

Reading and notetaking are major elements of college studying and learning. The expectations in college is that you read considerable amounts of text for each subject. You may encounter reading situations, such as professional journal articles and long textbook chapters, that are more difficult to understand than texts you have read previously. As you progress through your college courses, you can employ reading strategies to help you complete your college reading assignments.



Reflective Practice

- How does working memory work, exactly?
- What's the difference between working and short-term memory?
- What obstacles exist to remembering?
- In what situations is it best to memorize, and what do you memorize?
- What are the pros and cons of online reading?
- How can distinguishing between reading types help you academically and personally?
- How can you best prepare to read for college?
- What methods can you incorporate into your routine to allow adequate time for reading?
- What are the benefits and approaches to active reading?
- Do your courses or major have specific reading requirements?



Applying Your Knowledge



An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=1316#h5p-39>

Glossary

Active reading

Encoding

Imply

Infer

Long-Term Memory

Memory

Primary Sources

Recall

Recursive Reading

Short-Term Memory

Skimming

Working Memory

CHAPTER 11: TAKING NOTES

Chapter Outline

[11.0 Introduction](#)

[11.1 Taking Notes](#)

[11.2 Notetaking](#)

[11.3 General Tips on Notetaking](#)

[11.4 Career Connection](#)

[11.5 Fanshawe Resources](#)

[11.6 Knowledge Check](#)

11.0 INTROUDCTION

Learning Objectives

In this chapter you will learn about how to become an active reader and identify some strategies and best practices to help you reader smarter, not harder.

By the end of this chapter you should be able to:

- Identify the type of things you will need to read in college
- Define the active reading process
- Read about various note taking styles to identify what might work for you
- Recognize that you may need to adapt how you read and take notes depending on the purpose and format
- Identify skills and strategies to create notes that are effective study tools
- Reflect on your own note taking and study skills to identify areas of improvement
- Identify resources that can help you take responsibility for developing your note taking and reading skills.
- Recognize how academic success connects to career success

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11.1 TAKING NOTES

Work Smarter, Not Harder

As a college student, you have a lot to read both online and in print. For example:

policies, course outlines, job offers, exam schedules, test questions, multiple choice answers, textbook chapters, announcement boards, assignment instructions, PowerPoint slides, Excel spreadsheets, graphs, charts, emails, text messages, course sites, etc.

Understanding how you will use the information then helps you determine how and when to make notes that will help you be successful in understanding what you read.

Know Your Purpose

Whenever you enter a classroom, start to read a chapter, review an assignment, send an email, take notes, or start a conversation, know your purpose.

Investing two minutes thinking about your purpose (WHY you are doing this thing) will help you stay focused and make good use of your time.

- WHY you are reading/listening/talking/writing and determine
- WHAT you will do with this information.

Sometimes the answer is simple:

- I NEED to read detailed instructions of my assignment to identify due date, format for submission, requirements of the task, and where to submit to get the best grade possible.
- I NEED to take notes on the 7 step process to create a spreadsheet the professor is outlining so that I can create one for my assignment.
- I NEED to read this paragraph to identify if my in-text citations are formatted correctly.

Knowing what you need to do with the information you read will help you stay focused and help you organize the information in a way that is easy to retrieve. Rather than passively attempting to absorb new information, it is important to make conscious decisions about the methods of learning you will use (based on what you intend to do with the information), how you will select and use learning materials that are appropriate for your needs, and how persistent you will be in the learning activity.

This chapter will highlight tips to help you read with purpose and create effective notes that are effective study tools.



Reflective Practice

These questions will help you determine how this chapter concepts relate to you right now. As we are introduced to new concepts and practices, it can be informative to reflect on how your understanding changes over time. We'll revisit these questions at the end of the chapter to see whether your feelings have changed. On a scale of 1 (I need significant improvement) to 4 (I'm doing great), reflect on how you're doing right now on these statements:

1. I am reading on a college level.
2. I take good notes that help me study for exams.
3. I understand how to manage all the reading I need to do for college.
4. I recognize the need for different notetaking strategies for different college subjects.

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11.2 NOTETAKING



Getting Started

- Can you identify what is important enough to take notes on during a class lecture?
- Do you find it difficult to listen to the professor and take notes at the same time?
- Does your current note taking style translate into good study notes?
- Do you remember better if you type your notes or hand write them?

Active Listening and Note Taking

Effective notetaking requires active listening and is important because it:

- Supports your listening efforts and helps you stay focused,
- Allows you to test your understanding of the material,
- Helps you remember the material better when you write key ideas down,
- Gives you a sense of what the professor thinks is important,
- Creates your “ultimate study guide.”

There are various forms of taking notes, and which one you choose depends on both your personal style and the professor’s approach to the material. Each can be used in a notebook, index cards, or in a digital form on your laptop.

No specific type is good for all students and all situations, so we recommend that you develop your own style, but you should also be ready to modify it to fit the needs of a specific class or professor. To be effective, all of these methods require you to listen actively and to think; merely jotting down words the professor is saying will be of little use to you.



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The dental hygienist must be an ACTIVE LISTENER to interview clients AND TAKE NOTES to obtain an accurate medical history to make decisions regarding how to safely proceed with care. Dental hygienists are oral health educators and present individualized care plans to a client or community group. Communication skills would also be used to collaborate with other health care professionals to advocate for a client or community's oral health needs.

Lara Timler, BA, BEd, RDH, MPH and **Kelly Turner**, BA.(Kin), R.D.H., PME

Styles of Notetaking

Lists

Lists note down ideas as they are presented. Lists may be short phrases or complete paragraphs describing ideas in more detail. This method is what most students use as a fallback if they haven't learned other methods. This method typically requires a lot of writing, and you may find that you are not keeping up with the professor. It is not easy for students to prioritize ideas in this method.

The list method is usually not the best choice because it is focused exclusively on capturing as much of what the professor says as possible, not on processing the information. Most students who have not learned effective study skills use this method, because it's easy to think that this is what notetaking is all about.

Outlines

The outline method places most important ideas along the left margin, which are numbered with roman numerals. Supporting ideas to these main concepts are indented and are noted with capital letters. Under each of these ideas, further detail can be added, designated with an Arabic number, a lowercase letter, and so forth.

The following formal outline example shows the basic pattern:

1. **Dogs** (Main topic-usually general)
 - A. *German Shepherd* (Concept related to main topic)
 - a. Protection (Supporting info about the concept)
 - b. Assertive
 - c. Loyal
 - B. *Weimaraner* (Concepts related to main topic)
 - a. Family-friendly (Support info about the concept)
 - b. Active
 - c. Health
2. **Cats** (Main topic)
 - A. *Siamese*

Benefits

- Good method to use when material presented by the professor is well organized.
- Easy to use when taking notes on your computer.
- Allows you to prioritize the material.

At first you may have trouble identifying when the professor moves from one idea to another. This takes practice and experience with each professor, so don't give up! Reading your chapter or assignments before class can also give you guidance in identifying the key ideas.

After class be sure to review your notes and then summarize the class in one or two short paragraphs using your own words. This summary will significantly affect your recall and will help you prepare for the next class.

Concept Maps

When designing a concept map, place a central idea in the centre of the page and then add lines and new circles in the page for new ideas. Use arrows and lines to connect the various ideas.

Benefits

- Great method to show relationships among ideas.
- Good if the professor tends to hop from one idea to another and back.

This is a very graphic method of notetaking that is especially good at capturing the relationships among ideas. Concept maps harness your visual sense to understand complex material “at a glance.” They also give you the flexibility to move from one idea to another and back easily so they are helpful if your professor moves freely through the material.

For example, an arrow may be used to illustrate cause or effect, a double-pointed arrow to illustrate dependence, or a dotted arrow to illustrate impact or effect. As with all notetaking methods, you should summarize the chart in one or two paragraphs of your own words after class.

Cornell Method

The Cornell method uses a two-column approach. The left column takes up no more than a third of the page and is often referred to as the “cue” or “recall” column. The right column (about two-thirds of the page) is used for taking notes using any of the methods described above or a combination of them.

After class or completing the reading, review your notes and write the key ideas and concepts or questions in the left column. You may also include a summary box at the bottom of the page, in which to write a summary of the class or reading in your own words. The Cornell method can include any of the methods above and provides a useful format for calling out key concepts, prioritizing ideas, and organizing review work. Most colleges recommend using some form of the Cornell method.

If you are taking notes on your computer, you can still use the Cornell Method in Word or Excel on your own or by using a template someone else created.

Topic/Objective:		Name:	
		Class/Period:	
		Date:	
Essential Question:			
Questions:		Notes:	
Summary:			

The Cornell Method provides a straightforward, organized, and flexible approach and the example below shows how it might look when completed.

Academic Essay Elements

Topic	Topic <ul style="list-style-type: none"> – Establishes context – Limits scope of essay – Introduces Issue/Problem
Thesis	Thesis <ul style="list-style-type: none"> – Central argument or point of paper – Arrives early in paper—usually toward end of first paragraph (maybe a bit later in longer papers) – Focused, clear, and specific – Reflects writer’s position on the topic/issue
Supporting Details	Supporting Detail Paragraphs <ul style="list-style-type: none"> – Each paragraph has a specific topic – Clarify, explain, illustrate, expand on topic – Provide EVIDENCE—quotes, data, references <p style="text-align: right;"><u>Cite everything properly!</u></p>
Conclusion	Conclusion <ul style="list-style-type: none"> – Tie back to intro/thesis – Show how details supported the argument – Why is it important? – Point to implications/outcomes, but don’t introduce entirely new ideas

Use the structure, but don’t follow it too rigidly. The most important pieces are a strong thesis and good evidence to back it up. The conclusion should not just summarize—take it a little further.

This sample set of notes in the Cornell Method is designed to make sense of a large amount of information. The process of organizing the notes can help you retain the information more effectively than less consistent methods.

11.3 GENERAL TIPS ON NOTETAKING

General Tips on Notetaking

Regardless of what notetaking method you choose, there are some notetaking habits you should get into for all circumstances and all courses:

Be prepared — Make sure you have the tools you need to do the job.

Choose a tool that works for you, and be prepared to try new things like adding sticky notes, colours, etc.

Label, number, and date all notes at the top of each page. This will help you keep organized.

Don't try to capture everything that is said. Listen for the big ideas and write them down. Make sure you can recognize the professor's emphasis cues and write down all ideas and keywords the professor emphasizes.

Don't just copy the bullet points from a PowerPoint, make sure you know what they mean and how they apply to the topic.

Leave space between ideas — This allows you to add additional notes later.

Use signals and abbreviations and mark up or “annotate” your assignments with questions or details the professor mentions in class or in the instructions posted online.

Review your notes as soon after class as possible, the same day is best. This is the secret to making your notes work! Review the notes to call out the key ideas and organize facts. Fill in any gaps in your notes and clean up or redraw hastily drawn diagrams.

Write a summary of the main ideas of the class in your own words. Hand-writing your summary may help you remember better than typing it out. This process is a great aid to recall.

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11.4 CAREER CONNECTION

Career Connection

You will be expected to read and take notes throughout your working life and your job success will be dependent on your skills in this area.

Interview question

1. What process do you use when you are faced with a large amount of reading on a topic you don't know a lot about but need to learn to communicate the information to others. How do you work through a task like that?
2. You will be responsible for running weekly team meetings for a staff of 12 employees to let them know about price changes, sales, and any corporate news or policy changes. How will you ensure your team gets and understands these important announcements?

Scenarios to Reflect On

You get an email inviting you to an important meeting tomorrow that includes an agenda and link to a ZOOM session.

You skim the email for the time of the meeting and show up the next day and are surprised to see that you are supposed to be presenting and your audio and video do not connect properly during the meeting.

OR

Carefully reviewing the email you notice that:

1. Your department will be presenting a review of the last quarter. Knowing this, you review the report you got from your boss and reach out to her to see if you will be expected to present any of the report.
2. You also notice that the meeting invite is from a client outside of your company and the last time you used ZOOM your audio and video would not connect so you spend a few moments testing it this time so you are ready.
3. The next day you are prepared and connected and present your part professionally.

Your new boss tells you the steps it takes to lock up the store before leaving at the end of the day. You don't bother to write them down, relying on your memory. At the end of a long shift you forget one of the steps, the store gets broken into and thousands of dollars of merchandise are stolen and the store is a mess.

You will likely find yourself in various meetings throughout your life. Some may not be very interesting and run very long.

- Using active listening and note taking will help you stay focused and come away with the meeting understanding what your responsibilities are for next steps.

- Your notes will provide you with time to reflect, ask follow up questions, research information and act as the foundation for your plan and communication with the relevant stakeholders.
- By summarizing your notes in an email to the meeting participants you are then communicating and confirming your understanding to ensure you are not wasting time.
- Your email communication operates as a way to document your progress throughout any follow up required.

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11.5 FANSHAWE RESOURCES



The Library Learning Commons offers workshops and individual assistance with reading, note taking, and other study strategies.

[Study Skills Help](#)

[Cornell Note Taking Templates to Download](#)

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11.6 KNOWLEDGE CHECK

To Summarize

In this chapter the textbook outlined the importance of knowing your purpose before you start to read or take notes. Knowing what you will do with the information you are reading will help you determine what is important to write down, which helps you work smarter, not harder.

Different note taking styles might work better for different situations. Notes you take for math are likely very different than notes you take for biology. It will be important to identify what works best for you as you combine all that we have read about in the text: learning preferences, predicting how long things will take to accomplish, when and how long you can focus for.

Key Takeaways

- Active reading is a process of preparing, reading, capturing key ideas, and reviewing.
- To prepare, scan the chapter to find out what the chapter is about. Give yourself direction by creating questions. Write down your first question and read until you find the answer. Write down your answer, leave some space and move on to the next question. Repeat. At the end of your reading session, go back and pull out key ideas and words to add in the spaces between questions. Review by mentally answering the questions and check yourself against your reading notes.
- Taking notes is more than creating a record of what a professor said in class, it supports active listening, aids in remembering, gives clues to important concepts as well as tests your understanding of the materials and creates a study guide.
- Lists, outlines, concept maps, and the Cornell method are ways to take notes; the later three are preferred because they provide opportunities to prioritize and organize the materials.
- It is vital to return to your notes after class to review, make corrections, fill in gaps, and call out key ideas.
- Reading and taking good notes are skills that require active listening.



Reflective Practice

Answer the reflection questions below in full sentences.



An interactive HSP element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=574#h5p-24>



Applying Your Knowledge



An interactive HSP element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=574#h5p-23>

Glossary

Active Listening

Active Reading

Concept Map

Cornell Method

List Method

Outline Method

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CHAPTER 12: TAKING TESTS

Chapter Outline

[12.0 Introduction](#)

[12.1 Taking Tests](#)

[12.2 Your Purpose and Past Provide Focus](#)

[12.3 Study Strategies – Know the Format](#)

[12.4 Study Strategies – Know the Question Types](#)

[12.5 Effective Studying](#)

[12.6 Taking Action – Strategies for Math Tests](#)

[12.7 Group Studying](#)

[12.8 Taking Action for Test Anxiety](#)

[12.9 Fanshawe Resources](#)

[12.10 Knowledge Check](#)

12.0 INTRODUCTION

Learning Objectives

By the time you finish this chapter, you should be able to do the following:

- Outline the importance of memory when studying, and note some opportunities to strengthen memory.
- Discuss specific ways to increase the effectiveness of studying.
- Articulate test-taking strategies that minimize anxiety and maximize results.
- Identify resources that can help you take responsibility for developing your memory and test taking strategies
- Recognize how academic success connects to career success

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12.1 TAKING TESTS

Tested at every turn! Testing is a part of life. They alone are not good measurements about how smart or gifted you are—they show only how much you know or can do at that moment. We can learn from how we have performed, and we can think about how to apply what we have learned to do even better next time. We can have fun measuring our progress. Many of our daily activities are measurements of progress toward mastery of skills or knowledge. We welcome these opportunities as both work and fun. But when these opportunities are part of our academic life, we often dread them and rarely feel any sense of fun.

In reality, however, academic tests are similar to real-life tests in the following ways:

- They help us measure our progress toward mastery of a particular skill.
- They are not a representation of how smart, talented, or skilled we are but rather are a measurement only of what we know about a specific subject at a specific point in time.
- They are extraordinary learning opportunities.



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Academic tests in college maybe different from those you took in other school settings. College professors expect to see much more of you in a text or exam: your thoughts, your interpretations, your thinking process, your conclusions. This is why you need to modify your study habits and your strategies for taking test in college.



Healthcare Perspective

Many health careers require not only in college examinations but also a certification examination prior to being insured to enter practice.



Reflective Practice

How confident are you in preparing for and taking tests? Take this quick survey to figure it out, ranking questions on a scale of 1–4, 1 meaning “least like me” and 4 meaning “most like me.”

1. I set aside enough time to prepare for tests.
2. If I don't set aside enough time, or if life gets in the way, I can usually cram and get positive results.
3. I prefer to pull all-nighters. The adrenaline and urgency help me remember what I need come test time.
4. I study my notes, highlight book passages, and use flash cards, but I still don't feel like I'm as successful as I should be on tests.

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12.2 YOUR PURPOSE AND PAST PROVIDE FOCUS



Reflective Practice

As you are introduced to new concepts and practices, it can be informative to reflect on how your understanding changes over time. These questions will help you determine how the chapter concepts relate to you right now.

1. Which of the following is your most common method of studying?
 - a. Reading or rereading the text or my class notes.
 - b. Watching videos of my instructor's lecture or other people discussing the topics.
 - c. Taking practice quizzes/tests.
 - d. Creating/using study tools (flashcards, mnemonic devices, etc.).
 - e. Working with a study group, tutor, or academic support.
2. Which of the following do you have the most difficulty remembering?
 - a. Vocabulary and facts (such as Biology vocab, Historical facts)
 - b. Problem-solving methods (such as in Math)
 - c. Details from text and literature
 - d. Skills and processes (such as a lab technique or a building process)
 - e. Computer functions/locations/processes
 - f. Which formulas, processes, or categories to apply in situations (such as in Physics or Accounting)
3. How much anxiety do you feel when an exam or other major course evaluation is approaching?
 - a. A great deal
 - b. A lot
 - c. A moderate amount
 - d. A little
 - e. None at all

Building an Effective Study Plan Starts with Preparation

1. Start with reflecting on your recent test experience
2. Correct your mistakes and gather information about the next test/quiz
3. Create a study plan based on the information you get from step 1 and step 2

Learning From Past Tests



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While it may seem strange to talk about how to learn from past tests before other topics about tests, it is important that students use test results to their greatest benefit. When students don't achieve the results on tests and exams that they would like, it is tempting to just try to do better next time and forget about it.

Reviewing your test and examining the questions you got wrong or reading your feedback can help you determine what you need to change – the problem could lay in the way you take tests, study for tests or even how well you read and understand test questions.

Based on your analysis of your test, identify the kind of corrective steps you should take to improve your learning and test performance. Implement those steps as you begin your preparation for your next test. If you don't learn from your mistakes, you are doomed to repeat them; if you don't learn from your successes, it will be harder to repeat

them.

Using Past Tests/Assignments and Feedback to Improve your Future Results – Three Step Process

Step 1: Reflect on your test/quiz/exam/assignment results

- Review all parts of the feedback you receive – check the rubric and look in your grades for additional comments. What can you learn from the professor's comments?
- What questions did you get wrong? What kind of mistakes were they? Do you see a pattern?
- What questions did you get right? What were your strengths?
- Now think of the way in which you prepared for the test/exam/assignment. Were you prepared? Did you study the right material or have the right information/skills? What surprised you?
- Did you read the entire test/assignment before starting? Did your time allocation work well, or were you short of time on certain parts of the exam?

Step 2: Correcting Your Mistakes

The second step in making your results work for you is to correct your wrong answers, gather more information, and fill in any gaps in your knowledge. The last time you wrote the information (when you took the test), you created a link to wrong information in your memory, so that must be corrected.

- For multiple-choice questions, write out the question stem with the correct answer to form a single correct sentence or phrase.
- For true-or-false questions, write the full statement if it is true; if it is false, reword it in such a way that it is true (such as by inserting the word “not”). Then write the new statement.
- For math and science questions involving calculations, redo the entire solution with the calculations written out fully.
- You need not rewrite an entire essay question if you did not do well, but you should create a new outline for what would be a correct answer. Make sure you incorporate any ideas triggered by your professor’s comments.
- When you have rewritten all your answers, read them all out loud before incorporating your new answers in your notes.

Mistakes can also happen if you didn’t understand the format of the test and what might be required of you:

By answering the questions below before you start to study, you can apply the right strategy to the test type and your scheduled study time wisely based on the test type and format.

- What am I being tested on?
- How much is it worth?
- What types of questions are on the test/exam?
- What format is the test?
- How long do I have and how many attempts do I get?
- How many questions are on the test?
- Will the content on this test be included in future tests?
- Do I need to know this content before I can successfully learn the next part of the course content?

Step 3: Integrating Your Test into Your Study Guide

Your corrected assignments, quizzes, and midterm exams are an important study tool for final exams. Make sure you file them with your notes for the study unit. Take the time to annotate your notes based on what you learned from last time.

Review your updated notes, feedback, and annotated quiz/test results throughout the term (not just before the final) to be sure you cement the course material into your memory. When you prepare for the final exam, start by reviewing your quizzes and other tests to predict the kinds of questions the professor may ask on the final. This will help focus your final studying when you have a large amount of coursework to cover.

Exam Errors and How to Correct Them

- Preparation / Content Errors**
- Incorporate weekly review sessions.
 - Practice predicting possible questions.
 - Go to all classes, labs, and review sessions.

- Focus Errors or Carelessness During the Test**
- Read the entire test before starting to identify value of questions.
 - Prioritize the questions – what should you answer first?
 - Keep an eye on the time. Keep as close to your plan as possible.
 - Read carefully and think before answering.
 - Check your work.

If You Don't Get Your Test Back

If your professor chooses not to return tests to students, you can ask for feedback after the test to review it and your performance. Take notes on what you had trouble with and the expected answers. Add these notes into your study guide. Make sure you don't lose out on the opportunity to learn from your results.



Applying Your Knowledge



An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=584#h5p-25>

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12.3 STUDY STRATEGIES - KNOW THE FORMAT

Types of Tests

Strategies for different types of tests: each type has its own peculiar strategies:

Online tests

Online quizzes, tests, and training will likely be included in your learning management system (FOL at Fanshawe) and you may be required to access an online test on campus during class time, in a lab, or you may have a set time to complete the assessment outside of class time in a place you choose. Online evaluations require some additional planning to manage the technical aspects.

Go back to the beginning of the chapter to consider what you need to know about any test and then also consider the following:

- Since these tests are computer graded, the professor's judgment is not involved in the grading. Your answers will be either right or wrong; there is no room for partially correct responses.
- With online tests, be sure you understand the testing software. Is special software required like Lockdown Browser that prevents you from accessing the internet while taking the test? You can learn more from the [Lockdown Browser](#) website about how to install Lockdown Browser on your own device.
- Are there practice questions I can try to check my computer?
- Find out if you will be allowed to move freely between test sections to go back and check your work.
- Some testing software does not allow you to return to sections once they are "submitted."
- Unless your test needs to be taken at a specific time, don't wait until the last minute to take the test. Should you have technical problems, you want to have time to resolve the issues.
- To avoid any conflicts with the testing software, close all other software applications before beginning the testing software.

Paper tests

- Paper tests are still a very common type of test, requiring students to write answers on the test pages or in a separate test booklet or bubble sheet.
- They are typically used for in-class tests. Neatness and good grammar count. Remember that the professor will be reading dozens of test papers and a scanner will likely be marking your bubble sheet answers. Clear answers will be much easier to mark.

Open-book tests

- Always check with your professor as to what exactly this means. Are you allowed your textbook or just a tip sheet or formula sheet? Can you access any programs online? Can you use your phone or calculator? Clarifying what “open book” means with each of your professors will help you avoid any academic integrity offences.
- Professors often give this type of test when they are more interested in seeing your thoughts and critical thinking than your memory power.
- Be prepared to expose and defend your own viewpoints. When preparing, know where key material is present in your book and notes. Create an index for your notes and use sticky notes to flag key pages of your textbook before the test. Be careful when copying information or formulas to your test answers, because nothing looks worse in an open-book test than misusing the material at your disposal.



Photo by Pxfuel, Pxfuel License

Take-home tests/assignments

- Take-home tests are like open-book tests except you have the luxury of time on your side. Make sure you submit the test on time. Know what the professor’s expectations are about the content of your answers.
- The professor will likely expect more detail and more complete work because you are not under a strict time limit and because you have access to reference materials. Be clear about when the test is due and how to submit it.
- Confirm exactly how you are supposed to submit your work. Most professors will require you to submit your work to an online submission folder for grading. Do not email your work to them unless they specifically request this.
- Also, find out if the professor allows or expects you to collaborate with classmates. Be sure to type your test and don’t forget to spellcheck!

Video tests

- You may be asked to respond to written prompts and record your answer in video format, which will mean ensuring you have the right equipment (working camera, microphone, quiet space, etc.).

Whatever format your test takes, read the instructions well in advance so you can set yourself up for success. Early preparation will help you get the tools and materials together, ask questions, get help, which will all reduce your stress.

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12.4 STUDY STRATEGIES - KNOW THE QUESTION TYPES

The Secrets of the Q and A's

You can gain even more confidence in your test-taking abilities by understanding the different kinds of questions a professor may ask and applying the following proven strategies for answering them. Most professors will likely use various conventional types of questions. Here are some tips for handling the most common types.

DAVID DIBATTISTA
@ Brock UNIVERSITY

Questions are called the **STEM**

A. Key (✓)
B. distractors (✗)
C. distractors (✗)
D. distractors (✗)

Less knowledgeable

CONSTRUCT WITH HIGH QUALITY ITEMS

WHY TEST?
measure learning
facts concepts procedures Skills

TAP HIGHER ORDER COGNITIVE PROCESSES
CANNOT RELY ON MEMORY ALONE!

BLOOM
✓ Remember
✓ Understand
✓ Apply
✓ Analyze
✓ Evaluate
(Create)
selected response can't really measure Creativity

HOW NOVELTY
effective
good item
poor item
awful item

A+	C-	% Answered
90%	50%	✓ Correctly
71%	69%	
50%	90%	

CHALLENGES

#1 WRITING FLAWS
#2 FACTUAL RECALL

NEVER use none of the above
No all of the above

QUESTION FORMAT
✓ long-relevant-topical options short
✗ Sentence Completion - Shuffling
BSL
Cognitive burden
TRICK QUESTION INJURES TEST! 1/3 poor awful

IMPLEMENT (not create)
Tool BELT Solve

PLAUSIBLE
- distractors
- USE 4 OPTIONS (no more) (or 3)
- USE TRUE STATEMENTS!
- balance
- same length
- edge avoidance

11-2011 @giuliaforsythe

"Getting the most out of multiple choice questions" by Giulia Forsythe, CCO 1.0

Multiple-Choice Questions

Read the instructions carefully to determine if there may be more than one right answer. If there are multiple right answers, does the professor expect you to choose just one, or do you need to mark all correct options?

1. Read each question carefully and try to answer it in your head before reading the answer options. Then consider all the options.
2. First, eliminate the options that are clearly incorrect.
3. Read the questions and one of the options as a sentence and turn it into a True/False question.
4. Look for clue words that hint that certain option answers might be correct or incorrect.
5. Ensure the option you choose best matches what the question is asking.

True-or-False Questions

Answer the questions that are obvious to you first. Then go back to statements that require more thought. If the question is stated in the positive, restate it to yourself in the negative by adding the word “not” or “never.” Does the new statement sound truer or more false?

Short Answer Questions

Short answer questions are designed for you to recall and provide some very specific information: When you read the question, ask yourself what exactly the professor wants to know. Keep your answers short and specific.

Essay Questions

Essay questions are used by professors to evaluate your thinking and reasoning applied to the material covered in a course. Good essay answers are based on your thoughts, supported by examples from classes, and reading assignments.

- Careful planning is critical to answering essay questions effectively. Note how many essay questions you have to answer and how difficult each question seems. Then allocate your time accordingly.
- Read the question carefully and underline or circle keywords. Watch for words that describe the professor’s expectations for your response.
- If time allows, organize your thoughts by creating a quick outline for your essay. This helps ensure that you don’t leave out key points, and if you run out of time, it may pick up a few points for your grade. Jot down specific information you might want to use, such as names, dates, and places.
- Introduce your essay answer, but get right to the point. Remember that the professor will be grading dozens of papers and avoid “filler” text that does not add value to your answer.
- Write in direct and concise statements.
- Write neatly and watch your grammar and spelling. Allow time to proofread your essay. You want your professor to want to read your essay, not dread it. Remember that grading essays is largely subjective, and a favourable impression can lead to more favourable grading.
- Be sure to answer all parts of the question. Essay questions often have more than one part. Remember, too, that essay questions often have multiple acceptable answers.

12.5 EFFECTIVE STUDYING

Now What?

Now that you know more about the assignment/test/quiz/exam you can create an effective study plan. We have already seen how important your environment is (where and when you work best) and that regularly blocking time in your schedule will help reduce your stress when we looked at time management, goal setting, reading and taking notes.

Effective studying is an ongoing process of reviewing course material. The first and most important thing you should know is that studying is not something you do a few days before an exam. To be effective, studying is something you do as part of an ongoing learning process, throughout the duration of the term.

Studying Every Day

Studying begins after each class or assignment when you review your notes. Each study session should involve three steps:

1. Gather your learning materials

Take time to merge your class notes with your reading notes. How do they complement each other? Stop and think. What do the notes tell you about your material? What aspects of the material are you unsure about? Do you need to reread a part of your text?

Write down any questions you have for your professor and ask questions in class or via email about things you are not sure about. This helps avoid last minute problems, keeps you moving forward, and will reduce your stress.

2. Apply or visualize

What does this material mean to you? How will you use this new knowledge? Try to find a way to apply it in your own life or thoughts. If you can't use the knowledge right away, visualize yourself using the knowledge to solve a problem or visualize yourself teaching the material to other students.

3. Cement your knowledge

If you use the two-column notetaking method, cover up the right side of your notes with a piece of paper, leaving the questions in the left column exposed. Test yourself by trying to answer your questions without referring to your notes. How did you do? If you are unsure about anything, look up the answer and write it down right away. Don't let a wrong answer be the last thing you wrote on a subject, because you will most likely continue to remember the wrong answer.



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Studying in Course Units

1. At the end of each unit, or at least every two weeks or so, use your notes and textbook to write an outline or summary of the material in your own words.
2. After you have written the summary or outline, go back and reread your outline from the prior unit followed by the one you just wrote. Does the new one build on the earlier one? Do you feel confident you understand the material?

Studying before the Exam

- At least a week before a major exam, challenge yourself to come up with some really tough open-ended questions. Think about how you might answer them. Be sure to go to any review sessions the professor holds.
- Pay special attention to those items the professor emphasized during class.

More Tips

Schedule a consistent study-review time for each course at least once a week, in addition to your class and assignment time.

- Keep to that schedule as rigorously as you do your class schedule. Use your study time to go through the steps outlined earlier; this is not meant to be a substitute for your assignment time.

Use study tools that work for you!

- Think back to how you learn. Would it help to study and discuss things with others? Would you learn better by rewriting your notes or reading them out loud or both? It may take time to figure out what works for you. The more techniques you use, the better chance you have of encoding the information in a way you can retrieve it quickly.

Get yourself in the right space

- Choose to study in a quiet, well-lit space. Your chair should be comfortable but provide good support. Remember that libraries were designed for reading and should be your first option.

Minimize distractions

- Turn off your cell phone and get away from social media, television, other nearby activities, and chatty friends or roommates. All of these can cut into the effectiveness of your study efforts. Multitasking and studying don't mix.

If you will be studying for a long time, take short breaks

- Consider using the **Pomodoro** technique here. Get up, stretch, breathe deeply, and then get back to work. (If you keep up with your daily assignments and schedule weekly review sessions for yourself—and keep

them—there should be almost no need for long study sessions.)

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12.6 TAKING ACTION - STRATEGIES FOR MATH TESTS

Math tests require some special strategies because they are often problem based rather than question based.

Do the following *before* the test:

- Attend all classes and complete all assignments. Pay special attention to working on all assigned problems. After reviewing problems in class, take careful notes about what you did incorrectly. Repeat the problem and do a similar one as soon as possible. It is important that the last solution to a problem in your mind is a correct solution.
- Think about how each problem solution might be applied in a real-world situation. This helps make even the most complex solutions relevant and easier to learn.
- In your study group, take turns presenting solutions to problems and observing and correcting everyone's work.
- If you are having difficulty with a concept, get help right away. Check the resource list at the end of this chapter to identify where you can get help.
- Remember that math especially builds new material on previous material, so if you are having trouble with a concept now, you are likely to have trouble going forward.
- Make an appointment with your professor. Don't be shy about asking for a tutor—tutoring is not just for students needing remedial help; many successful students seek them out, too.



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Do the following *during* the test:

Review the entire test before you start and work the problems you feel most confident with first.

Approach each problem following three distinct steps:

1. Read the problem through twice: the first time to get the full concept of the question, and the second time to draw out pertinent information.

- After you read through the problem the first time, ask yourself, “What is this problem about?” and “What is the answer likely to look like?”
- The second time through, consider these questions: “What facts do I have available?” “What do I know?” “What measurable units must the answer be in?” Think about the operations and formulas you will need to use. Try to estimate a ballpark answer.

2. Compute your answer.

- First, eliminate as many unknowns as possible. You may need to use a separate formula for each unknown. Use algebraic formulas as far as you can before plugging in actual numbers; that will make it easier to cancel and combine factors. Remember that you may need two or more tries before you come up with the answer.

3. Check your work.

- Start by comparing your actual answer to the estimate you made when you first read the problem. Does your final answer sound likely? Check your arithmetic by opposite operations: use multiplication to check division and addition to check subtraction, and so on. You should consider using these three steps whenever you are working with any math problems, not just when you get problems on tests.

12.7 GROUP STUDYING

Groups

Study groups are a great idea—as long as they are thoughtfully managed. A study group can give you new perspectives on course material and help you fill in gaps in your notes. Discussing course content will sharpen your critical thinking related to the subject, and being part of a group to which you are accountable will help you study consistently. In a study group, you will end up “teaching” each other the material, which is the strongest way to retain new material. But remember, being in a group working together doesn’t mean there will be less work for you as an individual; your work will just be much more effective.

Picking Group Members

- Think small. Limit your study group to no more than three or four people. A larger group would limit each student’s participation and make scheduling of regular study sessions a real problem.
- Go for quality. Look for students who are doing well in the course, who ask questions, and who participate in class discussions. Don’t make friendship the primary consideration for who should be in your group. Meet up with your friends instead during “social time”—study time is all about learning.
- Look for complementary skills and learning strengths. Complementary skills make for a good study group because your weaknesses will be countered by another student’s strengths. When a subject requires a combination of various skills, strengths in each of those skills is helpful (e.g., a group with one student who is really good at physics and another at math would be perfect for an engineering technology course). Finally, a variety of learning strengths is helpful because each of you pick up differing signals and emphases from the professor that you can share with each other, so you will not likely miss important points.



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Meet regularly. When you first set up a study group, agree to a regular meeting schedule and stick to it. Moving study session times around can result in nonparticipation, lack of preparation, and eventually the collapse of the study group.

How to conduct a group study session

1. Assign a moderator, and rotate the role of moderator or discussion leader. This helps ensure “ownership” of the group is spread equally across all members and ensures active participation and careful preparation.
2. Define an agenda and objectives. Give your study sessions focus so that you don't get sidetracked. Based on requests and comments from the group, the moderator should develop the agenda and start each session by summarizing what the group expects to cover and then keep the group to task.
3. Assign follow-up work. If there is any work that needs to be done between meetings, make sure that all team members know specifically what is expected of them and agree to do the work.
4. Include some of the following items on your agenda:
 - Review and discuss class and assignment notes since your last meeting.
 - Discuss assigned readings.
 - Quiz each other on class material.
 - “Reteach” aspects of the material team participants are unsure of.
 - Brainstorm possible test questions and responses.
 - Review quiz and test results and correct misunderstandings.
 - Critique each other's ideas for paper themes and approaches.
 - Define questions to ask the professor.

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12.8 TAKING ACTION FOR TEST ANXIETY



Thought Activity

Consider the following statements as if they were True/False Questions. There are no wrong answers.

- T F** I have a hard time starting to study for an exam.
- T F** When studying for an exam, I feel desperate or lost.
- T F** When studying for an exam, I often feel bored and tired.
- T F** I don't sleep well the night before an exam.
- T F** My appetite changes the day of the exam. (I'm not hungry and skip meals or I overeat—especially high-sugar items like candy or ice cream.)
- T F** When taking an exam, I am often confused or suffer mental blocks.
- T F** When taking an exam, I feel panicky and my palms get sweaty.
- T F** I'm usually in a bad mood after taking an exam.
- T F** I usually score lower on exams than on papers, assignments, and projects.
- T F** After an exam, I can remember things I couldn't recall during the exam.

If you answered true to any of the statements in the table above, you have suffered some of the symptoms of test anxiety. Most of us have experienced this.

Test Anxiety

It is normal to feel stress before an exam, and in fact, that may be a good thing. Stress motivates you to study and review, generates adrenaline to help sharpen your reflexes and focus while taking the exam, and may even help you remember some of the material you need. But suffering too many stress symptoms or suffering any of them severely will impede your ability to show what you have learned.

Test anxiety is a psychological condition in which a person feels distress before, during, or after a test or exam to the point where stress causes poor performance. Anxiety during a test interferes with your ability to recall knowledge from memory as well as your ability to use higher-level thinking skills effectively.

If test anxiety becomes a serious problem, you may want to reach out to your academic advisor to see what resources are available to help. Remember, creating a plan will help integrate studying into your daily routine, which will reduce your stress.



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There are steps you should take if you find that stress is getting in your way:

Be prepared

- A primary cause of test anxiety is not knowing the material. If you take good class and reading notes and review them regularly, this stressor should be greatly reduced if not eliminated. You should be confident going into your exam (but not overconfident).

Make sure you eat well and get a good night's sleep

- Hunger, poor eating habits, energy drinks, and lack of sleep all contribute to test anxiety.

Flip the Script on Negative Thoughts

- Your own negative thoughts — “I’ll never pass this exam” or “I can’t figure this out, I must be really stupid!” — may move you into spiralling stress cycle that in itself causes enough anxiety to block your best efforts. When you feel you are brewing a storm of negative thoughts, stop what you are doing and clear your mind. Once your mind is clear, repeat a reasonable affirmation to yourself — “I know this stuff” — before continuing your work.

Focus on Your Own Success!

- Don’t waste your time comparing yourself to other students in the class, especially during the exam. Keep focused on your own work and your own plan. Exams are not a race, so it doesn’t matter who turns in their paper first.

Apply Active Stress Reduction Techniques

- You perform best when you are relaxed, so learn some relaxation exercises you can use during an exam. Before you begin your work, take a moment to listen to your body. Which muscles are tense? Move them slowly to relax them. Tense them and relax them. Exhale, then continue to exhale for a few more seconds until you feel that your lungs are empty. Inhale slowly through your nose and feel your rib cage expand as you do. This will help oxygenate your blood and reenergize your mind.

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12.9 FANSHAWE RESOURCES



Fanshawe has many resources available to help you study, prepare for tests and help you manage test anxiety that begins to negatively affect your school success.

- [Book a Study Space](#) on campus in a variety of locations. These spaces are perfect for working alone or in a small group to get things done. You will need your student number and FanshaweOnline email address to book this online.
- [Book or Become a Peer Tutor](#)
- Book a one on one [Study Skills Session](#) with a Faculty expert
- Take one of the virtual [Prepare to Learn Workshops on Test Taking Strategies or Study Tips](#)
 - [Virtual and In-Person Math Help](#)
 - [English Writing Appointments](#)
 - [Research Appointments](#)

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12.10 KNOWLEDGE CHECK

Key Takeaways

- Review your past tests to learn from your mistakes. Evaluate your results and consider why you got answers right or wrong; think about how you studied for this test and what you might need to change about your study habits; and finally, judge whether you managed your test-taking tasks well. Next, correct your mistakes and write out the correct answers. Finally, make your past tests part of your study notes and make adjustments to how you study or take tests to prevent making similar mistakes in the future.
- Frequent study is more effective than just studying before a test or exam. Study every day merging your class and reading notes, and creating questions for your professor on areas of confusion.
- Apply or visualize the material to make it more meaningful and cement your knowledge by testing yourself.
- Study in course units by using notes and text to create summaries or outlines of the material.
- A least a week before a major test or exam, gather what you know about what the test will cover, review your summaries and outlines and come up with likely test questions to use to test yourself. You may need to go back to review sections of notes based on expected test questions.
- Group study that is well managed can be an effective way to deepen your learning and understanding. Pick quality group members, meet regularly, assign a rotating moderator, set up an agenda and assign follow up work for group members.
- Tests help use measure your progress but are not representations of how smart, talented, or skilled you are; rather, they measure what you know as a specific point in time.
- Paper, open book, take-home, and online tests require different study techniques to help you prepare.
- Multiple choice, true-or-false, short answer, and essay questions are common types of questions you will encounter and each can be tackled differently using proven strategies.
- Math and science tests are problem based and require unique preparation.
- Test Anxiety can interfere with your ability to recall knowledge as well as use higher level thinking skills. Simple strategies such as being prepared, eating, and sleeping well before the test, re-framing negative thoughts, and not paying attention to others can help. Often, relaxation techniques can help you minimized the effects of test anxiety. For significant test anxiety, visit a college counsellor for additional strategies.



Reflective Practice

Use full sentences to answer the questions below.



An interactive H5P element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=610#h5p-28>



Applying Your Knowledge



An interactive H5P element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=610#h5p-26>

Studying



An interactive H5P element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=610#h5p-27>

Glossary

Essay questions

Online Tests

Open Book Tests

Paper Tests

Pomodoro Technique

Short Answer Questions

Take Home Tests

Test Anxiety

Video Tests

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CHAPTER 13: TECHNOLOGY AND RESEARCH

Chapter Outline

[13.0 Introduction](#)

[13.1 Essential Skills](#)

[13.2 Word Processing](#)

[13.3 Internet Research](#)

[13.4 Electronic Communication](#)

[13.5 Organization and Storage](#)

[13.6 Conducting Research](#)

[13.7 Knowledge Check](#)

13.0 INTRODUCTION

Learning Objectives

By the end of this chapter you should be able to:

- Perform tasks in word processing.
- Use online tools: spelling and grammar checks, thesaurus, synonym finders, dictionaries, and word-web apps.
- Research information on the internet.
- Utilize library services online.
- Bookmark useful references.
- Use electronic communication (e.g. email, social networks, college email, student portals).
- Create and use folders for organizing course work.
- Utilize different storage options (e.g. student drives, USB memory sticks, external drives, and cloud services).
- Explain the difference between information and knowledge.
- Describe information literacy.
- Identify the steps to a good research study.

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13.1 ESSENTIAL SKILLS

Technology and Research

Technology skills are essential skills, whether for going to school, being in the workforce, volunteering for an organization, or just communicating with your loved ones and friends. The use of computers has become the standard for finding information, sharing information, registering for things, ordering things, making appointments, and shopping.

Technology is definitely useful for taking courses. Whether your post-secondary courses are face-to-face or online, you will require computer skills for many tasks, including applying for school, registering in courses, accessing grades, submitting assignments, researching information, and creating word documents for assignments, researching papers, and taking notes. For taking online courses, students will need familiarity with the online learning platform where they will access the course, write tests, watch lectures, and upload assignments. Many textbooks (like this one) are offered and accessed online (like this one.) Computers are a great tool for giving students access and keeping students organized.

Students range in age from young adults to seniors, most of whom are quite comfortable with many of the learning outcomes from this module. However, you may see a few that you haven't learned or used before. Try to identify and get familiar with any of these. Some seniors and others have very little experience with computers. This is the time to dip your toe in and start using some of the features that will really help you as a student. There are often short introductory computer courses in community colleges that can get you started. It is a good idea to take one prior to starting your educational post-secondary program if you can. The following learning outcomes are covered in this module; you should get comfortable with them for taking courses.



Seniors love discovering new technology.



Healthcare is an essential and dynamic sector that necessitates swift adaptation to align with evolving global health demands. It is imperative for healthcare professionals to exhibit unwavering dedication to continuous education, driven by research and innovation. This commitment enables the delivery of cutting-edge healthcare practices that guarantee optimal patient and client outcomes.

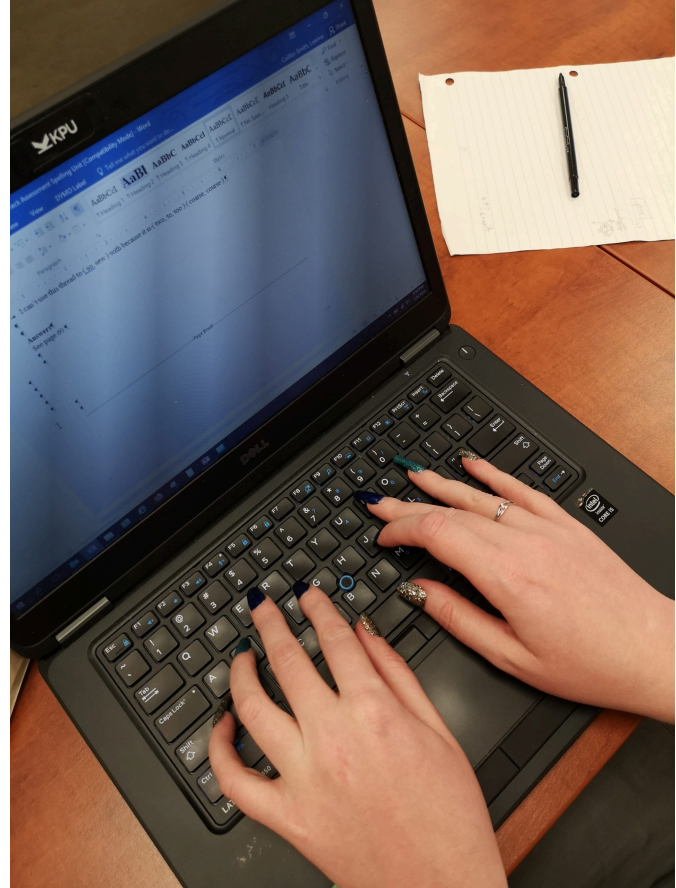
*Respiratory Therapist **Julie Brown**, RRT, MMSc, FCSRT*

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13.2 WORD PROCESSING

Word processing programs are invaluable tools for doing your assignments and writing essays. If you are someone who still likes to handwrite assignments, consider this: one of the most useful aspects of doing assignments on a computer is the ability to make changes. You can go back and reword things, correct mistakes, add in extra information to clarify issues or give examples, and reorganize your paper moving a paragraph from one place in your assignment to another using cut and paste and not having to retype it. It's especially useful if your instructor asks you to make changes to your assignment. You can start from your existing document and add to, summarize, or make your writing more concise. Most people are familiar with using at least one word processing program such as Microsoft Word, WordPad, or OpenOffice Writer. Many laptops come pre-loaded with word processing software.

When choosing software you need to keep a few things in mind. First, you want documents that others can read. If the software you use produces documents that can't be read by anyone that doesn't have the same software, then it becomes frustrating. Also, you want to have some nice features with your software. **Formatting features** such as **bolding**, indenting, bullets, different font sizes, styles, and **colours**, **underlining**, **italicizing**, **shading**, inserting captions, and **highlighting**, to name a few, are great features to make your documents visually appealing and clearer to read. Other features such as being able to insert and size charts and tables, pictures, headers and footers, symbols, **subscripts** and **superscripts** – all help to make creating documents easier. Having the ability to add **hyperlinks** to internet sites and **videos** enhances your documents as well. Using headings and features such as “find and replace” all add convenience and efficiency. Having the ability to track changes is a really useful tool for a student who is trying to get feedback from others or working on a group assignment.



Knowing how to create quality documents for assignments really helps!

Researcher's Perspective

While working on my Master's, I had many group assignments online. We had to share documents all the time, so we used a tool to share the work on the web and we'd track suggested changes from the different group members. On one project, all the members used Microsoft Word except for one student who used an unfamiliar word processing

software which didn't work well with Word. She could never see our tracked changes, and we couldn't see her changes. It became quite frustrating and ultimately cost us precious time. It's worth having a discussion at the beginning of a group project about what software everyone is using, and make sure it is all compatible.

Mary Shier, *College of the Rockies*

Microsoft Word is a common word processing software. Usually if you are a post-secondary student taking courses from an accredited school, you can have access to a free download of Microsoft Word for a year. You just need an email address from the institution you are attending. Check out your institution's website or contact their IT department for more information.

Spelling and grammar tools are almost standard in most programs now. They help identify if you've spelled a word incorrectly or if your sentence is grammatically incorrect. It's not perfect and it sometimes doesn't catch things that need fixing, or sometimes makes suggestions that weren't what you intended. So you still have to proof-read your work with a critical eye. If your program isn't set to perform spelling and grammatical checks automatically, you may want to go into settings and set it up for automatic checking, or at least perform a check every now and again as you go along.

The **thesaurus** and **synonym** tools are extremely useful when you are trying to think of words while writing assignments. You can enter the word that you want to replace and the software will suggest alternate words. It is very useful when you can't think of the right word you want to use, when you have used the same word repeatedly and you don't want to sound repetitive, or when you want to use a more interesting or engaging word. In MS Word and some other programs, when you are writing and use a word you'd like to replace, right click on the word, choose *synonyms* and a variety of words to choose from will appear. Thesauruses and synonym tools help writers make their writing more descriptive, expressive, and articulate.

Synonym Finder

On first draft, a student wrote, "My instructor is not only a great teacher and really helpful, but she is really nice." While proof-reading, the student realized that the word, *nice*, is fairly nondescript and doesn't tell the reader much. Not only that, but they had used it already several times earlier in their paper in a different context, so they wanted to use a different word so as not to be too repetitive. They used the synonym tool and it gave them the options of *enjoyable, agreeable, pleasant, good, fine, lovely, amusing, wonderful, kind, polite courteous, and gracious*. They thought about which, if any, of these words better described what they wanted to say. Some weren't applicable in this case, such as *amusing* or *courteous*, as these weren't what they intended. They ended up choosing *wonderful*.

They thought about why they think their instructor is nice or wonderful. It caused them to think more clearly about what they wanted to say. They then realized that it was because their instructor cared about their success and encouraged them. By going through this process using the synonym finder and taking the time to consider what they wanted to say, they improved their writing and made it more descriptive.

- First draft: *My instructor is not only a great teacher and really helpful, but she is really nice.*
- Next draft: *My instructor is not only a great teacher and really helpful, but she is really wonderful. She takes*

great interest in her students' success and encourages each of them personally. She believed in me and made me believe in myself which made me strive far beyond what I ever expected.

Using tools in your word processing programs can aid you in producing better writing.

Thesauruses and synonym finders are also useful for discovering definitions of words, along with online dictionaries and word-web apps. As you are reading text and come across words you don't know the meanings of, you can use these tools to quickly give you context for and understanding of your reading. Gone are the days when you had to take the time to physically get up, find a dictionary in book form, and look up the word by scanning through the pages to find the meaning of a word. Now it is as quick as right-clicking on your online text, or typing the word into an app on your phone to find the meaning. In seconds you can be back reading your text with new enlightenment.

If you currently use a good word processing program, check to see if you are able to access its many features. You'll likely never have use for all the features but some are very handy for you as a student. For example, a word processing program with a built in tool for referencing sources in APA or MLA format is extremely useful and time saving when writing research papers.

If you aren't familiar with these tools, get familiar by using one of these options:

- Try doing an internet search on how to use these features in your documents.
- Search YouTube and search for instructional videos on using these features.
- Take a short continuing education course. Colleges often have short evening or weekend courses to help people get familiar with features on their word processing programs.
- Find a short online course that can lead you through the many features.

Learning about the features in your word processing program will ultimately save you a lot of time and you will be able to produce documents that are visually appealing and organized.

Researchers Perspective

During my online Master's program, it became a signature feature for me to include a chart or graph in all my assignments. At first the reason it was to organize the information, and it was fun to create them. But then I realized the instructors loved them and they always commented on them. Creating charts and graphs went onto my check list for assignments that I always used before handing an assignment in. It was on the list along with proof-reading, editing, checking my references, checking formatting, etc. Try adding a chart to your next assignment. Your instructor will love it!

Mary Shier, *College of the Rockies*



Applying Your Knowledge

Exercise: Explore Word Processing Features

Create a short Word document. You can choose the topic for your document. Some possibilities include writing about your family, your job, a pet, a holiday, a product you just purchased, or how to make a good cup of coffee. The topic is your choice, but only choose one. Demonstrate three or more word processing features that you haven't used before or haven't used much. It can be as simple as changing fonts or using italics. It can be using the synonym tool to find better words for your document. It can be inserting clip art, creating a chart, or inserting a photograph. You can use any of the features listed in this section, or some that you have discovered on your own. Then demonstrate them in your document in a relevant way. At the end of your document, list the features that you are highlighting. If you used the synonym tool or thesaurus, note the words you started and ended with. Note the features you have never used before, if applicable. What features did you find most useful?

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13.3 INTERNET RESEARCH

The internet has become an invaluable tool to find out information. We have more information than we can deal with right at our fingertips. It wasn't always that way.

Researchers Perspective

I don't necessarily want to age myself, but when I went to university, outside of our textbooks, the only place we could access accurate information for research was at libraries (physical buildings) and we were limited by the library's open hours, which didn't always work with our schedules. We also had to physically go to the libraries which were often a distance to travel. Many of the resources (e.g. encyclopedias) could not be borrowed, so you had to use them in the building. Also, if other students beat you to it, the books you wanted were often unavailable as they had been checked out already and you had to wait until others returned the books, often weeks later. It was even more frustrating to be unable to find the desired information at all. That rarely happens anymore, as the internet is a source of information from around the world, not just from your local library.

Mary Shier, *College of the Rockies*

You can use search engines such as Google, Bing, or Yahoo to research general topics. This can often lead you to related terms or topics for other searches.

But with all the information available on the internet, you need to know how to discern what information is useful and accurate. The internet is full of information that is based on people's uneducated opinions. Worse than that, it is full of information intended to further specific agendas, to impact people's beliefs and ideas with biased trains of thought, or to sway people into investing their money and resources.

There are sources of information that are deemed credible, and these are where you want to focus your energy. Using information which has been scientifically proven or studied using authentic practices is key. Using search engines such as GoogleScholar will help filter information, and identify material that is from credible sources.

Libraries

Libraries are great sources for online academic journals. These are documents that have been peer-reviewed by academics and experts in the field who verify that accurate and verifiable methods were used to come to their conclusions. Librarians can help you find credible sources for your topics of research. Your college or university library is a great place to start. On their website they likely have links to academic journals that you can search by field, topic, or author. Often librarians will do workshops for internet research to help new students. There are also inter-library loans for resources if you can't find what you are looking for in your institution's library. Educational institutions often have subscriptions to allow students to access national online academic databases.

See the library services at [Fanshawe Library](#) to check out how simple it is to search for and access academic journals and databases online. Check out their research guide to search fields of study. Alternately, check out the online library services.

As well as school libraries, public libraries are also a great source of information. Public libraries are often accessible online, so you can do your research for resources from home before going there. You can see if the books you want are available locally or need to be ordered in from another library. You can see how many copies are currently available and can put resources on hold to ensure no-one snags them while you are on your way to pick them up.

Some of the main differences between academic (college and university) libraries and public libraries include:



Using the college computer lab

Differences between Academic and Public Libraries

Academic libraries

- primarily serve the needs of college and university students and faculty and serve the educational objectives of the institution
- may have some fiction, but the collection primarily exists to serve the educational objectives of the various departments on campus
- collections including databases usually include the latest research and the most technical information on certain fields
- media collections are often weighted toward specific informational topics
- some academic libraries are research libraries which supply their faculty and graduate students with information to support research projects to advance knowledge
- different branches of the library will specialize in a specific field such as law, architecture, engineering, health, or education

Public libraries

- serve the needs of the entire community, from young children to the elderly
- have a broader collection that includes a strong component of fiction materials, including romance novels, suspense, mysteries, and literature
- non-fiction collections rarely have highly specialized materials in their book collection, periodical collection, or electronic database
- non-fiction collections rarely have highly specialized materials in their book collection, periodical collection, or electronic database
- media collections, including recordings and movies, are often heavily weighted towards entertainment
- public libraries are great resources for information about a broad range of topics
- different branches of the library will offer a similar broad range of subject matter in each branch

Academic libraries are great for accessing the most relevant and up-to-date information on changing fields such as health care and scientific discoveries. Public libraries are useful for accessing information on topics not usually available in academic journals and current research, or information about topics for which the educational institution is not responsible for teaching. It is always a good idea to start with your school library and then move to the public library if you can't find what you are looking for.

Bookmark References

There are bookmarking tools on most web browsers, such as Internet Explorer, FireFox, and Chrome. This is helpful when you find sites on the internet that you want to return to. Similar to putting a bookmark in a book, this keeps a short cut back to the chosen web page. This is useful when you are researching sources for your assignments.



Applying Your Knowledge

Exercise: Internet Research

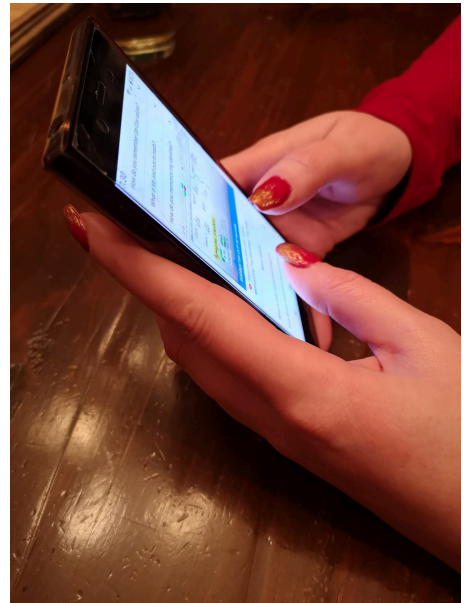
Use Google Scholar to find an interesting article on a topic of interest. Then bookmark the site so that you can return to it later. Close the page and use the bookmark to return to the site. You can even start organizing your bookmarks according to topic or category or course.

13.4 ELECTRONIC COMMUNICATION

Electronic communication has almost become more prevalent than speaking and listening. Sending quick messages via text, messaging systems, emails, and social media are fast, convenient, and efficient ways to communicate. Sending group information is a great way to have a multi-way conversation. These methods are useful for communicating with your instructors, your class-mates, your friends and family—even if it’s to quickly explain that you can’t join them for a movie because you’re working on an important assignment.

Unless you don’t use a computer at all, most people are used to using at least one of these modes of communication. They all have pros and cons and specific ways they are more useful for certain situations. For example:

- **Social media:** When a new mom posts pictures of her new baby on Facebook or Instagram, family and friends can all enjoy the occasion and make comments under the pictures that all can enjoy. This is revolutionary compared to the days when people had to print their pictures, seal them in an envelope, and mail them to a recipient who didn’t get it until much later. This method had a financial cost as well, including the printing of the pictures and the cost of postage. Posts on social media mean people can see them instantly and respond in a timely manner. This is a useful medium when you want several people to access the information or visuals.
- **Texts:** Texts allow people to send quick messages back and forth instantly. It’s great for meeting up with people or finding out information quickly. It’s great when you require a quick answer to an easy question. It is less disruptive than a phone call and can often be done fairly unobtrusively. Texts often use data and can be expensive if sent or received out of the country, when it may make more sense to use an app that uses wireless connections.
- **Instant messaging:** Apps that use wireless internet are really useful while travelling or for those that don’t have data plans. People can check in with family members and can share details of their trips. Apps such as Messenger, WhatsApp, Line, Viber, and SnapChat are examples. They can be used to share messages, links, videos, and pictures.
- **Tweets:** Tweeting is a form of social media but it differs in that it is broadcast to the general public. Anyone can see your tweets if they look for them. Some tweeters have many followers. Followers are those who have signed up to get notifications from specific tweeters. President Donald Trump is notorious for tweeting out his opinions in the middle of the night, and subsequently his tweets have made the news by morning.
- **Emails:** Emails are more useful for longer bits of information as it is easier to type an email on a keyboard on your laptop. They are useful for conversations in which you will expect a lot of back and forth messages. Emails can be easily searched to find a conversation string.
- **College email:** Often post-secondary students are given a college email when they register. This is useful to check for college announcements such as important dates (statutory holidays, college closures, exam times, semester start and end dates, bookstore buy-back events etc.) It is also useful for student announcements and special offers to post-secondary students.
- **Student portals:** Student portals are special sections of the school’s web-site that are specifically for students. You usually need your student number to sign in. It can be used to buy and sell used textbooks and other items, arrange student car-pooling, and notify students about cancelled classes. This is a useful information portal for students while they are registered



Social media is at your finger tips.

in courses.

- **Video chats:** Voice Over Internet Protocol (VOIP) allows voice and video chats electronically. Popular platforms include Skype, Messenger, Microsoft Teams, WhatsApp and others. These allow you to hear and see the people you are talking to. This enables stronger communication because not only words are used in communication, but facial expressions, tone of voice, and gestures.



Applying Your Knowledge

Exercise: Electronic Communication

Choose a method of electronic communication that you haven't used before. Use it – you may have to download the app onto your phone or computer first. Once you have used it, report on what you used, how easy or hard it was to use, whether or not you had any responses (comments, messages, etc.), and whether you think you would like to continue using it.

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13.5 ORGANIZATION AND STORAGE

Students need to keep their work organized. Once you start working on multiple assignments, you want to be able to find and access your work easily. If you aren't used to keeping your files organized, then this section will be very important for you. There are two parts to keeping your work organized: saving and backing up.

Saving

Some people save everything on their desktop or in their documents file. They just hit save and let it save to the default destination. This results in a huge collection of documents in one place. This can make it hard to see what documents you have, and to find them when you are looking for them. It's the equivalent of having a huge pile of papers sitting on your desk, and you can't find anything. This is true for all documents, whether it is for work, volunteer organizations, random household documents, or vacation planning. As a student, it often makes sense to create file folders for each course you are taking. File folders are just like what you would expect in a regular filing cabinet. A filing cabinet contains file folders usually organized in alphabetical order, or possibly by theme. Inside the file folders are all the documents pertaining to that topic. Students should make a file for each course. Then it's important to name the documents carefully so that they are easy to identify. That way you can pull a document out of a file at any time. Once you have saved a document into a file folder (using the "Save As" function) then it will automatically save it in the same place every time you hit "Save". You should hit save often to make sure you don't lose your work if a sudden power outage occurs or your computer fails or shuts down suddenly.

You can have file folders within file folders. For example, you may have a file folder named College Courses. When you open that folder, you could have sub-folders named for each of your courses. Within each folder you can have all the documents which are related to that course – your assignments, labs, saved reference material, etc. Then it's easy to locate your documents. The more courses you take, the more you will appreciate having your documents saved in an orderly manner.

Whenever you are working on an assignment or research paper, make sure to save regularly. Saving regularly is critical. There is nothing more frustrating than putting your heart and soul into an assignment, only to lose it. It usually happens to every student once, because it is a hard lesson to learn. Once they have suffered the loss of a lot of hard work put into an assignment, students rarely allow that to happen to themselves again. Students need to save their material regularly.

Researchers Perspective

I usually hit the save button about every paragraph. Sometimes I hit it more often if I have struggled to word a sentence just right; I'll hit *save* immediately as soon as I'm happy with it. Anytime I've fiddled with sizing a picture or wrapped text around a picture and fussed with it until I'm happy with the layout, I hit *save*. Anytime I've created a link or formatted all the headings, I hit *save*. Whenever I've cut and pasted information, or moved chunks around on the page, I hit *save*. If I'm going to hop up from the computer to make a cup of tea, I hit *save*. That way if I get distracted and come back later, I know the file has been saved. My motto is to save often enough that you wouldn't be frustrated if you lost the unsaved data and had to recreate it. For me that's virtually every 5-10 sentences or every paragraph. If you can't remember the last time you hit *save*, then hit **save!**

Mary Shier, College of the Rockies

Backing Up

Backing up your documents is critical. Just as losing unsaved material is frustrating, so is losing entire documents that have been saved. Back-ups provide extra copies of your important documents (which includes your course assignments) in a separate location, just in case. Some insist you should have two back-ups for all your important documents. You can lose your data for various reasons: your computer dies suddenly and you can't recover any of the documents; your computer gets a virus and the documents are destroyed; your computer has hot coffee accidentally spilled on it, or is thrown in a mud puddle by your helpful toddler; the power goes out after several hours of typing, but you realize you didn't save the document because you were so focused; the document mysteriously disappears off your computer; maybe someone unknowingly hit "Delete," or it got saved off into cyberspace somewhere. Sometimes there are no explanations as to why a very important homework assignment goes completely missing days before it is due.

The answer is to back up your material regularly. There are several options to do this.



USB memory sticks.

Memory stick: Use a memory stick to have your assignments saved on an external storage device. At the end of every work session, store your work on your computer (where you should have been hitting save all along) *and* on a separate memory device. The advantage is you can carry your stick with you wherever you go and work on it on other computers if needed. If choosing this as an extra back-up, remember – it isn't useful if it's still attached to your laptop when you drop the laptop in the lake. Then both the laptop and the memory stick are hooped. A back-up is only a back-up if it is in a separate place than the original copy. If the computer and memory stick are both in your computer bag, and the computer bag goes missing, you've lost your

back-up too.

Student drives: Educational institutions are often on a network drive. Students then receive their own personal drive which can be accessed with their student number and password. This ensures that students using college computers can save their work on their personal drive. No-one else can access, revise, or delete their work because it's stored under their own personal drive. The other advantage is that the student drive can be accessed from any computer in the building. Students don't have to wait for a specific computer to access their documents.

External hard drive: Many people back up their files on an external hard drive. This provides a second copy of their files which is stored in the home or office. The advantage of this method is that all files are stored and backed up in the same place. In the case of an emergency such as a fire, the external hard drive can be grabbed and will have all important files and pictures on it.

The Cloud: Cloud storage is convenient and can be accessed from anywhere there is access to the internet. Cloud storage such as Google Docs, Xdrive, MediaMax, DropBox, OneDrive, and Strongspace are



External hard drive.

especially handy, because even if your home explodes and takes your electronics and storage devices with it, your documents are still safe.

Email: This is one of the easiest ways to back up your work while you are still working on it. If every now and then (say after you have done a significant enough amount of work that you'd be upset if you lost it) email the document to yourself. You can name it Draft 1, Draft 2, Draft 3 and so on. That way it's available from anywhere that has connectivity and you have the most recent back-ups of your work.

Regardless of which tool you use, make sure to save and back up your school work! Save every few minutes and back up every work session. You will be glad you did!

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13.6 CONDUCTING RESEARCH

Turning Information into Knowledge



Getting Started

- What is the difference between information and knowledge?
- What is information literacy?
- What are the steps to a good research study?

What Is the Difference between Information and Knowledge?

Life is a series of problems needing solutions. We need to find information that matters and then discover why it matters. Curiosity, then, is a response to an environment of exploration, manifesting in wanting to know “why” or “how.” How do you make sense of the world? How does information translate to knowledge? Connecting ideas, thinking critically, acting responsibly, and communicating effectively

are all essential to lifelong learning and active engagement in today’s world. You need to become proficient, ethical users and producers of information in a globally connected world. It is important to be able to reason, manage resources, work productively with others, acquire and evaluate information effectively, organize information, interpret and communicate the information, and work with an ever-evolving variety of technologies. In other words, you need to become information-savvy consumers and producers. You need to be able to adapt to, understand, evaluate, and make use of technology so you can be citizens that shape our society, rather than being its pawns. What you learn is often what you will want to communicate to others.



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What Is Information Literacy?

Human beings are passionate, curious, and always seeking to connect with each other and make sense of things. Learning is more effective when new information is meaningful and linked to some personal experience or prior knowledge. Learning is about both context and content. It is necessary to learn how to assess, evaluate, and connect in order to make information become knowledge. Information literacy skills are the hallmark of the ability to do research. What is important is for you to learn how to find information that “matters” and then figure out why it might matter.

Information literacy is a link between the life experiences of you as a student, the academic world of scholarship, and the postcollege real world of application of learning. An information-literate person has the ability to ask questions and knows the difference between ignorance and understanding. (When do I need information?) Information literacy builds a lifelong ability to determine where information is kept (Where is the best place to find this?) and in what forms knowledge is stored (Which knowledge products will likely have what I need?).

Information literacy relies on the use of a critical mind to discern credible from not credible, valid from not valid. It is actually the core of the first-year experience. It lasts, while the specifics of particular courses fade over time. After all, the nature of research, the core of higher education, is a learning process: “How do I learn about something?” Communication skills are essential to your ability to both learn and share what you’ve learned.

What Are the Steps to a Good Research Study?

Research is a part of life. In fact, you conduct research daily. You look things up whenever you want a hotel or a good restaurant in a new city, or a recipe for cookies you’d like to make for a party. Sometimes you use Google for answers, and other times you ask people to help you answer your question. At times you might need to visit specific websites to find good information on the kind of used car you should buy or tickets to a sporting event or concert you hope to attend. All of this is part of research at its most basic level—asking a question and then answering it. Research can be defined as an activity that produces new knowledge. However, it is not timeless. Questions change, and so do answers. New questions bring new light to bear on any topic or issue. For example, consider the way we have controlled the use of pesticides. Over time, we moved from acceptance to shock and now horror at some of the side effects. It is new information on pesticides that has influenced our change in thinking. And the reason we know this

information is that someone did the research and then communicated it to our community through newscasts, newspapers, online sites, and so forth.

We often accept ideas as fact. For instance, how do we come to believe such things as “Three out of four dentists recommend . . .” or “McDonald’s french fries are preferred three to one over . . .”? Or that heroin is addictive, or that putting infants in car seats prevents fatal injuries, or that drinking while pregnant can be harmful? It is important to know that these statements are the result of questions that led to serious research. Understanding the methods used to do research will help us understand how we come to know what we know. In cases such as these, someone was interested in knowing the answer to a particular question, planned a research study, and then published the findings. When people do this kind of research, their purpose is not only to find an answer but also to communicate what they found to the rest of us. They are communicating new knowledge.

Research is exploration and the search for possible answers to questions. Most students think research is about finding answers, but it is more about the questions we ask that lead us to the answers. Good research starts with good questions. Researchers ask themselves a question, create a possible answer in the form of a hypothesis, and then begin a process of gathering information with a methodology. If we understand how important questions are to doing research, we are then better able to determine the credibility and validity of the information sources we use. When evaluating sources, we can ask: Why should I believe this author? What does she know that makes her someone I should pay attention to? And when deciding on credibility, we can ask: What did the author do to convince me his answer is the correct one? Did the evidence



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really match the question the author was asking? Thus, information literacy is the ability to evaluate sources on the basis of what questions were asked, determine if those are the best questions to ask, assess whether the answers offered really answer the questions, and decide if the author is prepared to answer those questions well. Using these as guides leads us to mindfully explore the vast array of information available to us. And when we do so, we won’t find ourselves taking information at face value and passing it on as though it were valid, like some of the “fake news” that is prevalent today.

So let’s start the process of doing research. The activity below will help you begin the process. After this, you will be introduced to the simple steps you need to take to do the research and then communicate your findings appropriately.



Activity

Pick a topic you might like to research or have already been assigned to research for a class. Then take a close look at the list of knowledge products below, and rank them in order of which ones you would most likely use for a research paper. After ranking them, explain why you put them in that order.

- **Books:** histories, pictures, topic overviews
- **Journals:** research studies, expert opinions, analyses, lists of other information sources
- **Magazines:** basic and recent information, pictures, reviews

- **Newspapers:** very recent information, place-specific information, reviews
- **Films, videos, television, music:** pictures, speeches, sound
- **Internet sources:** current or historical information from a variety of sources or individuals, data or commentary compiled by individuals or specific organizations or companies, graphics, sound, music, animation, video, pictures
- **Conversations, interviews:** opinions, direct experiences, personal viewpoints, attitudes, histories
- **Government publications:** reports, studies, statistics, laws, regulations
- **Documents:** reports, laws, statistics, facts
- **Diaries:** personal stories, histories, opinions, reflections

These can also be categorized by types of knowledge products. For your research, you have to choose wisely among these, too. There are **scholarly knowledge products**, which are mostly written for scholars in a particular field. The author is identified, and credentials are available. Sources are documented, and technical language is often used. Secondly, some knowledge products might be considered **professional**. These are written for professionals in a field, the author is most often identified, sources are not always documented, and the language may or may not be technical. Finally, there are **popular knowledge products**, which communicate a broad range of information. The author is often not identified, sources are often not documented, and language is not technical. Because they are commercial products packaged for wide sales, they often use colour and have numerous ads.

When you are faced with a research assignment, it is important for you to be able to create successful search strategies. You need to find sources for specific purposes and audiences and be able to critically evaluate these sources. When doing research, you also have to incorporate the information you find for specific purposes, acknowledge the sources, and provide citations. To make this easier to understand, think of scholarly writing as a simple story told with a particular set of conventions (rules). What are these conventions? They are: a research question, a hypothesis, a methodology, a review of the literature, an interpretation of your work, and an analysis of the significance of what you've found.

Research Question

First of all, you need a topic. This is often the most difficult part of the whole process. So begin by thinking of something that is really interesting to you. Let's take music for an example. You need to ask some questions about music to start the process. Some examples of questions are:

- What does music mean?
- What is the function of music?
- What is the value of music?
- What is the significance of music?
- How is music made?
- What causes music to happen?

The easiest way to come up with questions regarding whatever topic you choose is to start with basic questioning words: *who, what, why, when, where, how, might, could, can, should, will, must, did*, and so forth. You can ask better questions, and this will help you narrow down your hypothesis. For instance, *why* does music change over time? *Who* will play this music? *How* did this music come about? *Why should* we listen to this music?



Activity

1. Name your topic: *I am studying* _____
2. Suggest a question: *Because I want to find out who/how/why/whether/when/what* _____
3. State a rationale for the question: *In order to understand who/what/where/how/why/whether* _____

Going through this exercise every time you are tasked with writing a research paper will help you clarify what you want to accomplish and why.

Hypothesis

Scholars use information to answer one or more questions inspired by a topic of interest. Usually, a scholarly question identifies a problem and a solution. Such questions are usually written in the form of a hypothesis, which is a statement about the relationship between two things that identifies both a problem and an answer or solution. An example of a hypothesis would be: Different genres of music have an effect on the mood of the people listening to them. The questions asked to get to this hypothesis might be: Does music have an effect on mood? Do people listen to music to make them feel better? What kind of music is used as a way to energize the listener? Is there one type of music that is better than others for calming someone down?

Your hypothesis must reflect what is known about a research topic in such a way that your research project will add new knowledge and insight to what is already known. In order to arrive at a hypothesis that achieves this goal, you must learn as much as possible about your topic so you can narrow down your hypotheses to what you don't know. Then your research project will produce new knowledge. *Your hypothesis is about what you don't know.* However, you might find that you can't prove your hypothesis. You might find evidence that contradicts it, and you will have to reflect on why your hypothesis might have been wrong.



Activity

Find two newspaper articles to analyze. Read through them and answer the following:

1. What questions are being answered in the articles?
2. What questions do you think need to be answered?
3. What was the hypothesis that the writer of these articles was working from?

It is important to be able to find the hypothesis that a writer has constructed to tell you a story. You have to make sure you understand what they are trying to “prove” and what questions they asked in order to do so.



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Methodology

Education is about discovery. This means that you need to learn how to question, evaluate, and determine the worth, credibility, and relevance of what you, as a student, find. Thus, when doing research, you need that hypothesis to begin the rest of your research.

The next step is to come up with key words or concepts that describe your topic. Start by preparing an outline for yourself. List the key words (for instance, on the topic of music, some key words might be *music, instruments, genres, musicians*, and so on). Then create a list of narrower terms, which are more specific things that you want to know about your topic, such as *time frames, geography, population*, and *age groups*. Finally, you can list broader terms that are the larger subjects that include your key words. For music these could be *cultural expression, jazz, hip-hop, singers*, and so forth. Your methodology will be a compilation of the sources you decide to review. It is an orderly approach to problem solving and gathering useful data, using such sources and strategies as interviews, public documents, surveys, experiments, the Internet, and many more.

The kind of methodology you decide to use depends on the type of research you will be conducting. You could do **exploratory research**, which basically answers the question “Does something exist?” This “something” could be an event, a thing, or an idea, such as a concert or music designed for relaxation. Or perhaps you want to do **descriptive research**, which is the kind of study that defines something by describing its characteristics, behaviours, or actions. For instance, you could describe a genre of music, how it was created, and what instruments are usually used to compose this type of music. A third type of research you may want to do is called **prediction research**, which involves identifying relationships that make it possible for us to speculate about one thing by knowing about something else. Music has taken many turns over time, and you might want to suggest that the next phase of music might all be electronically produced. And finally, you could choose to do **explanatory research**. This type of research examines cause-and-effect relationships. For example, there is music created to tell a particular story in a specific manner. This might be true of rap music. To study this, you would use explanatory research to describe this phenomenon.

Review of the Literature

One other piece of the research puzzle is a review of the literature. The literature in a particular field is its **discourse**, which is actually a conversation over time about a topic. When you do your literature review, you are inserting yourself in the middle of such a conversation and getting information only from that particular time and perspective. For instance, if you want to study the effects of music on children, you will find a wide variety of sources that will give you information about the topic. You will discover that many

people have been interested in the issue and have done studies trying to find out the answer. These studies have been done over many years, and the perspectives involved have changed accordingly. The discourse continues over time, and you can insert information into the conversation by conducting your own research.

Thus, a review of the literature finds, evaluates, and integrates past research. It is a critical synthesis of research literature that:

- shows how previous studies relate to one another.
- shows similarities and differences between studies.
- discriminates between relevant and irrelevant information.
- indicates weaknesses in previous work.

The purpose of the literature review is to synthesize many specific events and details into a comprehensive whole. Synthesis results from weaving together many smaller generalizations and interpretations into a coherent main theme. You will find that a literature review is always required of an assigned research paper for a course. The purpose is to enable you to critically analyze a segment of an already published body of knowledge. A comprehensive literature review encompasses the following elements:

- Start the introduction by describing the problem or issue you are addressing, then focus on your research hypotheses or questions.
- Explicitly state the significance of the topic in the introduction.
- Present the review as an essay, not an annotated list.
- Emphasize the findings of previous research you have found.
- Point out the trends and themes in the literature.
- Point out the gaps in the literature.
- Express opinions about the quality and importance of the research you have found.
- Use the review to suggest that there is a need for more study.

Avoiding Plagiarism

You certainly have heard about plagiarism and how important it is not to let yourself participate in it. It is so easy to read through many other people's work and grab a sentence here and there to put into your own paper. As you're struggling to come up with ideas, you may also find yourself borrowing from others. Neither of these is a good idea.



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Plagiarism often starts with the note-taking stage of the research process. Thus, when taking notes, be sure to distinguish between paraphrases and direct quotations. When you are copying an exact quotation, be extremely precise. Note all the information you will need for the citation. It is a good idea to make a system for yourself, perhaps colour coding, when doing your research. Make direct quotations one colour and your own paraphrasing of ideas another colour. Both quotations and paraphrases need to be cited with sources, both within the paper and at the end.

Learning how to use the ideas of others to add weight to your own ideas involves effort and a commitment to academic honesty. It is not always clear exactly how or when to use sources, and sometimes you might need advice or guidance. Since your professors are most familiar with the expectations of their disciplines, they are the best people to ask. Your college likely offers support in the writing lab or online.

If you need more guidance, the Purdue Online Writing Lab (OWL) has a section on [safe practices for researching and drafting](#), where you can find excellent advice on identifying plagiarism and preventing yourself from plagiarizing.

While the process of writing authentically and avoiding plagiarism must be focused from the start, you can avoid a world of trouble by double-checking your near-final work with a source identification site or plagiarism detector. Doing so can help you avoid any unintentional reuse of others' work and may simply identify a source you forgot to cite.

Validity and Credibility

Before you move on to interpreting your data and addressing the significance of what you found, you need to understand the concepts of **validity** and **credibility**. There are many ways you can check the validity of a piece of information. Can you find contradictory or confirmatory data? Can you find evidence that disputes what you are reading? If so, use this information. It is always useful to mention opposing ideas. Ultimately, doing so might strengthen your own ideas. Is the topic within the expertise of the person offering the information? Was the method chosen to convey this information the best method to use? The credibility of the author is another important aspect of checking your sources. In other words, evaluate the authors. Are they experts on the topic? Do they have credentials to write on this particular topic? Has this author written anything else on this topic?

Evidence is the way we show that we are using the experiences, values, research, and perspectives of others. To be information literate is to apply the concepts of subjective and objective evidence to our selection, use, and evaluation of information. When we read a website or view a television program, can we recognize that a particular set of values and perspectives is being used? Are we able to identify when evidence is being used? Can we determine that the evidence being used shows a relevant connection between values, perspectives, and conclusions? Are enough different values and perspectives being presented that the conclusions can be considered objective? It is important to learn how to determine the validity and credibility of sources.

The Internet presents its own challenges when it comes to discovering valid and credible information. When looking at a website, you should be able to answer the following questions: Who is responsible for the site (i.e., who is the author)? What can you find out about the responsible party? Where does the site's information come from (e.g., opinions, facts, documents, quotes, excerpts)? What are the key concepts, issues, and "facts" on the site? And finally, can the key elements of the site be verified by another site or source? In other words, if you want to find some information online, you shouldn't just Google the topic and then depend on the first website that pops up.

For certain topics and types of information, you may need to dig deeper. Take into account the funding behind a website. Look up the author, and see if they have written anything else and if there are any obvious biases present in that writing. As an example, if you find a website about vaccinations and autism, and this website was put up by a parent group that opposes vaccinations, you have found information that has biases built in from the start. The point of view presented is most likely one-sided, and thus you need to look for more balanced sources to learn if there is in fact some relationship between childhood vaccinations and the onset of autism. This is just an example; you can find sources ranging from reasonably trustworthy to totally untrustworthy on any topic.

Interpretation

Interpretation is the task of drawing inferences from the facts that you collect in your research. It is a search for the broader meaning of your research findings. This is where you try to make sense of what you discovered. In this part of your research, you should discuss the most important knowledge you gained about your topic from your sources. Here is where you go back to your hypothesis and research questions to discuss your findings and whether or not your hypothesis is correct.

Significance

Remember that earlier it was stated, "Life is a series of problems needing solutions." Consequently, an increased amount of inquiry leads to progress as we continue to expand our knowledge base on a variety of topics. Whatever you find in your research study

has significance, as it adds to our knowledge in a particular area. In this section of your writing, it is important to describe the process by which you located your information and then provide advice to other researchers on how to effectively and efficiently find information on this topic. This allows for the continuation of inquiry and the development of more data and knowledge. This is where you communicate to others the new knowledge you discover in your research.

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13.7 KNOWLEDGE CHECK

Technology skills are invaluable for your success as a student.

- Use word processing software for your assignments and get to know the tools and features of the program so you can utilize maximize efficiency, visual appeal, and function.
- Use spelling and grammar check tools to make sure your assignments don't have unnecessary errors.
- Use synonym finders, online thesauruses, and digital dictionaries to keep your writing expressive and your reading meaningful.
- Researching information on the internet for your course work requires finding credible sources and up-to-date information.
- Using electronic bookmarks to create short-cuts to favourite web pages help to organize reference material when researching a topic for an assignment.
- Libraries are useful places to find information such as online academic journals and databases.
- Use electronic communication such as messaging, texting, emails, and video chats, noting that different types are better in different situations.
- Organize your documents into file folders according to courses. Keep them organized so they are easy to locate.
- Saving documents regularly and backing up documents onto external storage such as USB memory sticks, external hard drives, or cloud services ensures that documents don't go missing or get inadvertently destroyed.



Reflective Practice

What word processing software do you use? Is it the most popular software? Does it help you collaborate with others?

When you gather information from the Internet, do you ask yourself "can I trust this information source?" or do you accept what is written at face value? How could you assess the reliability of the information you are reading?

How professional are you in your communications with other? As a future healthcare professional, you should start now and be professional in your communications with your instructors, fellow students, and college staff.



Applying Your Knowledge

Exercise: Technology Skills

Choose a topic that interests you. Some suggestions are: student success, technology, the value of education, a career you are

interested in, a health topic, a sport or hobby, a political topic, faith, a controversial issue—whatever you like. If you are having trouble choosing a topic, speak to your instructor. Write approximately one page about this topic.

1. Use a word processing program to write out your assignment.
2. Use spelling and grammar checks to locate and fix errors.
3. Research your topic on the internet and use information from credible sources in your paper. Make sure to bookmark your sources on your web browser.
4. Utilize your school’s library online to find information about your topic.
5. Save your document into an appropriately labelled folder.
6. Back up your document to at least one external storage device.
7. At the end of your paper:
 - Note the sources that you used. Use your bookmarks to go to the sites and copy the links to include here.
 - Note the name of the folder you saved your document in and where it is stored on your computer.

Glossary

Credibility

Descriptive Research

Discourse

Exploratory Research

Formatting Features

Interpretation

Popular Knowledge Products

Prediction Research

Professional Knowledge Products

Scholarly Knowledge Products

Synonym

Thesaurus

Validity

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CHAPTER 14: WRITING AND PRESENTING

Chapter Outline

[14.0 Introduction](#)

[14.1 Writing and Presenting](#)

[14.2 Interpersonal Presentation Skills](#)

[14.3 Planning the Presentation](#)

[14.4 Presentation Aids](#)

[14.5 Delivering the Presentation](#)

[14.6 Knowledge Check](#)

14.0 INTRODUCTION

Learning Objectives

In this chapter the following topics will be covered:

Interpersonal Skills – Students will:

- Practice techniques that affect physical presence (eye contact, face audience, body language).
- Practice speaking skills including projection, speed, tone, clarity, and enthusiasm.
- Use humour and practical examples to engage audience.
- Use a variety of visuals in presentations (e.g. handouts, props, posters, Power Point presentations).
- Facilitate questions and discussion.

Planning the Presentation – Students will:

- Describe key communication format factors to consider when developing a presentation.
- Describe the main functional elements of an effective introduction.
- Describe the functional organization in the body of an effective presentation.
- Describe the main functional elements of an effective conclusion.
- Develop a presentation outline using the concepts discussed in the chapter.

Presentation Aids – Students will:

- Explain how visual aids can improve the quality and impact of a presentation.
- Distinguish unique benefits of different types of visual aids.
- Develop visual aids that are consistent with standard presentation quality criteria.

Delivering the Presentation – Students will:

- Explain the preparation process used to deliver a presentation.
- Describe ways to cope with mistakes and surprises during a live presentation.
- Describe important audience factors to consider in delivering an effective presentation.
- Critique and provide constructive feedback on a professional presentation.

14.1 WRITING AND PRESENTING

You may be taking a course that requires you to make a presentation. You may have already had exposure to public speaking and giving presentations, or perhaps you shudder at the thought. This module introduces you to the art and science of putting together an impressive presentation. You will utilize key strategies needed to prepare and deliver presentations. Doing so requires a range of skills. Foremost is the ability to communicate well. Whether for business, school, or in everyday life, the ability to communicate effectively and with confidence is a core skill. But not everyone is a gifted communicator.

The art of communication involves the effective transmission of facts, ideas, thoughts, feelings, and values. Speech is a key skill in communicating. Conversational speech may come easily to some, but communicating verbally in a professional context may not. Public speaking can be thought of as a rhetorical skill. To be effective, you need to understand not only what to say but also how to say it. You will learn about rhetoric as a function of communication, its key elements, and how it can be applied to professional presentations.

Casual conversation is usually spontaneous and informal. What is communicated may be unplanned and without consequence. Presentations, on the other hand, need to be planned and well-structured. They often occur in formal and sometimes stressful environments. Unlike in casual conversation, personal traits used in formal presentations may not come to you naturally. As a presenter, you need to know how to use elements of verbal and non-verbal communication effectively. For example, eye contact, body language, speaking style, active listening, and being concise are all important elements of a quality presentation. You will learn ways to hone these traits in order to effectively apply them as you develop your personal communication style.

In this module you will learn about proven techniques for planning a presentation for different purposes such as informing, persuading, or entertaining your audience. Each of these requires attention to detail and a clear strategy. Delivery includes what you say in words and what you say using props or presentation aids. You need to ensure these work in harmony to convey your message clearly. You will also learn about design considerations for creating visual aids to enhance your presentation.



Student presentations provide valuable experience.



Writing and Presentations skills are essential to a Registered Dental hygienist who are active in the community providing oral health care and education, presentations to kids in schools, older adults and many other diverse populations.

Anxiety is a common barrier many presenters experience, and can result from being nervous or uncomfortable facing groups of people. It can also be caused by things like the presentation venue, familiarity with equipment that will be used, or other environmental factors. You will examine techniques to cope with and offset the impact of presentation anxiety.

As you work through the sections in this module, you will learn that giving good presentations does not just happen; rather, it is the result of a deliberate and well-planned process that combines both art and science.

Interpersonal skills are perhaps the most important for a successful presentation. They are key to getting your message across and to the way your audience reacts to you and interacts with you during your presentation. You will discover how verbal and non-verbal skills can be harmonized to deliver a presentation that an audience will not soon forget, both in its content and in presentation.

The next phase of the process is about planning. Here you will learn about factors to consider when preparing for an effective presentation and how to develop an execution strategy based on these factors. We will cover planning activities such as knowing your audience, researching supporting evidence for your topic, and organizing the flow of your presentation.

The final phase focuses on delivering a presentation. This is the culmination of your hard work in preparation and planning. It is where you showcase your communication skills and planning strategy. This is also the time when your audience is eager to get what they came for. In other words, this is the time when you sell yourself based on the quality of information you will convey and on how well it resonates with the audience.

Regardless of its substance or how well planned it may be, a poorly delivered presentation can be a significant disappointment to you and the audience. Very few presentations can be done well by winging it. You will learn several delivery techniques that improve the likelihood of a successful presentation including how to skillfully use body movements without causing distraction, how and when to vary voice characteristics to add emphasis, and the subtleties of eye contact to draw your audience into the presentation. You will also discover the pros and cons of using props and how to integrate them effectively to support your presentation.

Since your presentation is as much about you as is the topic, you will learn tips and techniques for rehearsing, interacting with your audience, conducting effective Q&As, and improving your persona.

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14.2 INTERPERSONAL PRESENTATION SKILLS

Presentation Skills

Many people have very limiting beliefs about presentations and their own abilities to give one. Examining your skills, fears, and preferences is your first step in opening yourself up to reaching your full potential as a presenter.

Your voice is a powerful communication tool, and how you use it can make or break your presentation. In this chapter you will learn about how you use verbal elements of presentation by examining techniques like pitch, volume, and pronunciation, among others.

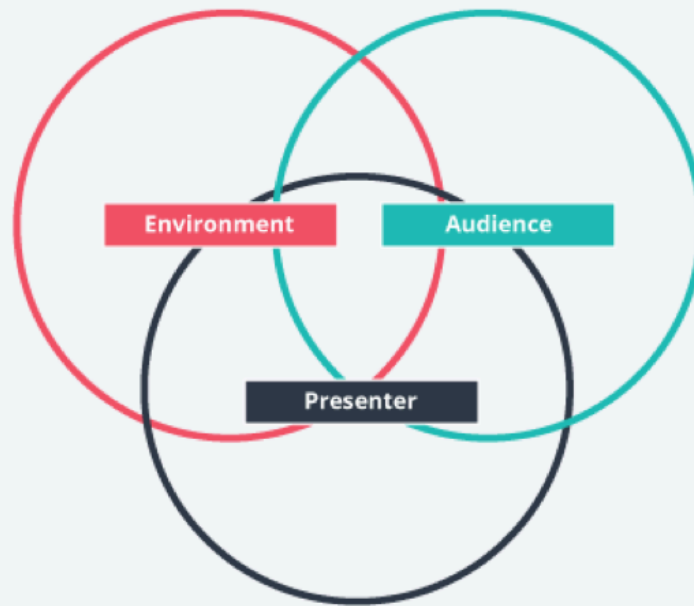
Your **non-verbal cues** like gestures, facial expressions, and posture can punctuate and strengthen your message or do the opposite. You will learn about these non-verbal elements and have a chance to see how you use them in conjunction with your verbal cues by recording and examining a practice presentation.

After combining all of these elements, you will have a better understanding of who you are as a presenter and what you can bring to the table to develop your presentation strategy in the next chapter.

What Makes a Successful Speech or Presentation?

It's important to remember that a successful speech or presentation depends on a number of factors. For our purposes we can boil them down to three main factors: the environment, the presenter, and the audience. The presenter is key to a successful presentation. The speaker must have planned the presentation to be engaging and easy to follow, and then must deliver it well to be clearly understood. Often people forget about the other two aspects. The audience is important to consider as well. How much do they already know? What is their interest in the subject? Do you want them to ask questions and be involved in the presentation? Finally, the environment is the third aspect to consider when planning a presentation. Speeches and presentations usually take place in controlled environments, so the environment aspect is often overlooked. But everything from technology failure to a room being too hot or too cold can thwart a presentation's success. Using a room next to a noisy construction site can ruin even the most beautifully planned presentation. The environment affects both the speaker and the audience. You can't have a successful speech or presentation without considering all three aspects: the presenter or speaker, the audience, and the environment.

What Makes a Successful Presentation?



The Speaker

According to longtime Toastmasters member Bob Kienzle, there are a few key elements that tend to make a successful speaker:

- Voice—Can the person be easily understood?
- Body Language—Does their body support what they're saying? Are they confident?
- Coherent Structure—Does what they're presenting make sense? Is it logical?
- Enthusiasm—Do they care about what they're presenting?
- Expertise—Do they know what they're talking about? Are they credible?
- Practice—If they haven't practised or sufficiently prepared, it will likely show up in one or more of the above.

A successful speaker can be inspired by other speeches or speakers but may fall flat if they try to copy someone else. Authenticity and passion can resonate so much with an audience that it can outweigh elements otherwise considered pitfalls. The techniques, tools, and best practices are a guideline, and it's important to note there is no such thing as perfection in public speaking. Failure can happen in a myriad of ways, but it's more helpful to see them as learning opportunities, or opportunities to make a stronger connection to your audience.

The biggest failure, according to Kienzle, is to pass up opportunities to practise your skills in presenting or public speaking.

The Audience

One of the most anxiety-inducing areas of presenting or speech-making is being in front of the audience. Some people may feel more at ease with relatively small audiences of up to about 10 people. Others feel that 10 people is too intimate and actually feel more comfortable with impersonal numbers in the hundreds or thousands.

People often think of hostile audiences throwing tomatoes and yelling boos if the presenter makes the slightest mistake or slip of the tongue. But the truth is that most audiences desperately want you to succeed. They are overwhelmingly on your side. This means that in most situations they are very forgiving; they know being up there can be tough. If you make a mistake, you can apologize or laugh it off and keep going.

The audience is at least as involved in your presentation as you are. Awareness of yourself and awareness of them is key. If you are so preoccupied with your fear of the audience that you hide your head behind the podium while reading a boring list of facts your audience could read themselves, you will lose them. If you're not interested, they're not interested. If you are so frightened of your audience that you never look at them, you will not be able to get cues about their involvement in your presentation.

What you bring to the audience affects what they get from your presentation or speech. For that reason, it is tremendously important to develop enough self-awareness so that you can be *present* for your audience and have the confidence to make adjustments to keep them on your side and involved in your presentation.

The Environment

Sometimes you have no control over your environment. When you are asked to make a presentation for a class, you are likely confined to the course classroom. But there are usually some factors you will have control over. Regardless, it is a good idea to check out the space where you will be presenting to decide where things will happen.

Some things to check out if possible:

- *Room temperature.* If the audience is too hot or too cold they can be very distracted. See if you can make sure the temperature is comfortable before starting, and feel free to get feedback from your audience if they look uncomfortable. Your acknowledgement of their discomfort and efforts to do something about it (e.g. send someone to the office to try to fix the problem) goes a long way towards bringing the audience on side.
- *Distracting noises.* Are there fans, outside noises, or busy adjacent classrooms? If so, try to work around those things. If a noisy first aid class meets every morning from 9-11, and you can hear them through the wall shouting medical instructions in their mock emergency scenarios, this is not a good time to schedule your presentation.
- *The lay of the land.* Decide where you will stand ahead of time. Decide where your projection screen will be, where your projector will be, and where you want your audience to sit. If you decide on this ahead of time, you'll avoid mistakes like people not being able to see properly because of an obstruction, the projector not displaying a large enough screen, and the audience being too far away or too spread out. It's a good idea to move desks around so they are in a seating arrangement that is conducive to the presentation. Do you want them in a big U, or in small groups, or in traditional audience seating style?

Remember to consider all three aspects when planning your presentation: the presenter, the audience, and the environment. Let's first concentrate on the presenter and the interpersonal skills required.

The Presenter: Your Strengths and Weaknesses

Are you aware of your strengths and weaknesses as a presenter? You may have some ideas already. For example, if you are very soft-spoken, you may consider that to be a weakness if you're on a stage, especially without a microphone. Soft-spoken people also sometimes keep low-key in other ways; maybe they're more plain in the way they dress or have less expressive mannerisms. Many people think that to be effective on stage you must be a rip-roaring extrovert. This is not true. No matter who you are, if you are aware of the qualities that make you a unique individual and you spend time getting to know your audience, you can convert perceived weaknesses into potential strengths. Conversely, if you are so overconfident about your abilities that it shows itself in poor preparation and lack of concern for your audience or environment, your strengths can quite quickly become weaknesses.

Your first step in helping define what makes you yourself is to look at what you're good at and what you enjoy doing. At the same time, this helps you distinguish what you're not so good at and what you don't enjoy. Make a list as you go through the next sections on your verbal and non-verbal communication techniques to get a reasonable prediction about how to focus your strategy as a presenter.

What Are My Verbal Communication Techniques?



Presentations are a great way to communicate about differences and similarities and open understanding.

Pitch

Do you have a deep, low voice, or a high-pitched one? We all have a normal speaking pitch where we are most comfortable, but we can move our pitch up or down. Use pitch inflections to make your delivery more interesting and emphatic. If you don't change pitch at all, your delivery will be monotone, which gets boring for the audience very quickly. Some people pitch their voices up at the end of sentences, making every statement sound like a question—avoid this common but distracting habit.

Volume

Do you speak softly or loudly? Adjust the volume of your voice to your environment and audience. If you're in a large auditorium, speak up so that people in the back row can hear you. But if you're in a small room with only a few people, you don't want to alarm

them by shouting! You may need to use volume to compensate for ambient noise like traffic or an air conditioner. You can use volume strategically to emphasize the most important points in your speech.

Emphasis

Stress certain words in your speech to add emphasis to them, that is, to indicate that they are particularly important. You may also use a visual aid to emphasize key points by using photographs or charts.

Pronunciation

Make sure that you know the appropriate pronunciation of the words you choose. If you mispronounce a word, it could hurt your credibility or confuse your audience. Websites such as Wiktionary contain audio files that you can play to hear standard pronunciation of many words. Your pronunciation is also influenced by your accent. If your accent is quite different from the accent you expect most members of your audience to have, practise your speech in front of someone with the same accent that your audience members will have, to ensure you are pronouncing words in a clear, understandable way.

Fillers

Avoid the use of “fillers” as placeholders for actual words (*like, er, um, uh*, etc.). You might get away with saying “um” two or three times in your speech before it becomes distracting, but the same cannot be said of “like”—a particularly troubling filler for many North American speakers. If you have a habit of using fillers, practise your speech thoroughly so that you remember what you want to say. This way, you are less likely to lose your place and let a filler word slip out.

Rate

Are you a fast or slow speaker? The pace that you speak at will influence how well the audience can understand you. Many people speak quickly when they are nervous. If this is a habit of yours, practice will help you here, too. Pause for breath naturally during your speech. Your speaking rate should be appropriate for your topic. A rapid, lively rate communicates enthusiasm, urgency, or humour. A slower, moderated rate conveys respect and seriousness. By varying your rate within a speech, you can emphasize your main points and keep your audience engaged.

What Non-Verbal Cues Do I Use?

Gestures

A **gesture** is “a movement of that you make with your hands, your head or your face to show a particular meaning” (Oxford Learners Dictionaries, n.d.). You can use these to channel nervous energy into an enhancement of your speech, reinforcing important points, but they can be distracting if overused. If the audience is busy watching your hands fly around, they will not be able to concentrate on your words.

Take a look at this article, titled “[What to Do with Your Hands When Speaking in Public](#)” for dos and don’ts of gesturing when you are speaking.

Facial Expression

You might be unaware of how much your facial expressions say when you are speaking. Facial expression comes so naturally that we are not always in control of the story our face is telling. Rehearse your speech in front of a mirror to see what facial expressions come across. You might find that your face is saying something entirely different about your topic than your words are! Practise using facial expressions consciously. If you are speaking about an upbeat topic, smile! Conversely, if your topic is serious or solemn, avoid facial expressions that are overtly cheerful, because the audience will be confused by the mixed message.

In North American culture, the most important facial expression you can use is eye contact. Briefly catch the eye of audience members as you move through your speech. If you can't look your audience members in the eye, they may view you as untrustworthy. Remember, though, that eye contact is a culturally sensitive gesture. In some cultures, there are certain accepted behaviours for males looking females in the eye, and vice-versa. You'll want to avoid holding eye contact for too long with any one person, as too much can be unnerving.

Posture

It's easy to let your posture slip when you've been talking for a while, but try to stay conscious of this and stand up straight. This gives the audience the perception that you are authoritative and take your position seriously. If you are slouching, hunched over, or leaning on something, this gives the impression that you are anxious, lacking in credibility, or not serious about your message. Speakers often assume a more casual posture as a presentation continues, but you only get one shot at making a first impression, so make sure you begin with a strong stance.

Silence

Silence is a powerful technique if used well, but it is often overlooked. Perhaps you had a teacher in high school who would stand sternly and silently at the front of the room, expectantly waiting for the chatter to die down. Their silence and stance were unnerving, so students soon became quiet, didn't they? And some of the best comedians use the well-timed pause for a powerful and hilarious—rather than serious—effect. Either way, pauses are useful for emphasis and dramatic effect when you are speaking.

Some speakers are reluctant to pause or use silence because they become uncomfortable with the dead air, but sometimes your audience needs a moment to process information and respond to you.

Movement

You can use your body movements to communicate positively with the audience. Leaning in or moving closer to the audience helps to bridge the space of separation. Moving from one side of the room to the other in a purposeful way that supports your content is a useful way to keep your audience engaged; their eyes will track your movements. Pacing rapidly with no purpose and no support to your message may quickly distract from your message, however. Standing still without movement when you are listening or responding to a question can show interest. However, standing still without any movement for the duration of your presentation could leave the audience bored. Balance is key, as is using your body as an extension of your content that suits the context of the environment and the audience.



Reflective Practice

Consider the factors presented in this section.

- Which factors do you consider are already personal strengths?
- Which factors do you feel are personal weaknesses?
- Which factors would you like to focus on in upcoming presentations?

Summary

This section helped you focus on getting to know your presentation style by understanding yourself better. You learned that elements of the environment, the audience, and the presenter have an impact on what makes for a good speech. You examined several issues related to self-awareness, including dealing with strengths and weaknesses. Finally, you learned about verbal and non-verbal elements of your presentation style. You should now be able to take what you have learned from this section into the next section as a foundation to build your presentation strategy.

- There are three aspects to consider for presentations: the presenter, the audience, and the environment.
- Voice, body language, coherent structure, enthusiasm, expertise, and practice are ingredients that can make a successful speech or presentation.
- The audience wants you to succeed.
- Making a recording of your verbal and non-verbal cues helps to identify your presentation style.
- Verbal elements such as pitch, volume, emphasis, pronunciation, fillers, and rate all impact the presentation.
- Non-verbal elements such as gestures, facial expressions, posture, silence, and movement all impact the presentation.
- Self-awareness of the presenter's strengths and weaknesses will help to adjust verbal and non-verbal elements for the presentation and can impact the presenter's planning strategy.

14.3 PLANNING THE PRESENTATION

Planning

To think about a strategy for your presentation, you must move from thinking only about your self to how you will engage with the world outside of you, which, of course, includes your audience and environment.

This section focuses on helping you prepare a presentation strategy by selecting an appropriate *format*, prepare an audience analysis, ensure your style reflects your authentic personality and strengths, and that the tone is appropriate for the occasion.

Then, after you've selected the appropriate channel, you will begin drafting your presentation, first by considering the general and specific purposes of your presentation and using an outline to map your ideas and strategy.

You'll also learn to consider whether to incorporate backchannels or other technology into your presentation, and, finally, you will begin to think about how to develop presentation aids that will support your topic and approach.

At the end of this chapter you should be armed with a solid strategy for approaching your presentation in a way that is authentically you, balanced with knowing what's in it for your audience while making the most of the environment.

Preparing a Presentation Strategy

Incorporating FAST

You can use the acronym **FAST** to develop your message according to the elements of *format*, *audience*, *style*, and *tone*. When you are working on a presentation, much like in your writing, you will rely on FAST to help you make choices.

FAST Form

- **F**ormat – What type of document will you use? What are the elements of that document type?
- **A**udience – Who will receive your message? What are their expectations? What's in it for them?
- **S**tyle – What personality does your writing have? Consider issues like word choice, sentence length and punctuation.
- **T**one – How do you want your audience to feel about your message? Is your message formal or informal? Positive or negative? Polite? Direct or indirect?

There is a [FAST Form](#) template to fill out.

First, you'll need to think about the format of your presentation. This is a choice between presentation types. In your professional life you'll encounter the verbal communication channels in the following table. The purpose column labels each channel with a purpose (I=Inform, P=Persuade, or E=Entertain) depending on that channel's most likely purpose.

Presentation Communication Channels

Channel	Direction	Level of Formality	Interaction	Purpose
Speech	One to many	Formal	Low One-sided	I, P, E
Presentation	One or few to many	Formal	Variable Often includes Q&A	I, P, E
Panel	Few to many	Formal	High Q&A-based	I, P
Meeting	Group	Informal	High	I, P
Teleconference	Group	Informal	High	I, P
Workshop	One to many	Informal	High Collaborative	I (Educate)
Webinar	One to many	Formal	Low	I
Podcast	One to many	Formal	Low Recorded	I, P, E

There are some other considerations to make when you are selecting a format. For example, the number of speakers may influence the format you choose. Panels and presentations may have more than one speaker. In meetings and teleconferences, multiple people will converse. In a workshop setting, one person will usually lead the event, but there is often a high level of collaboration between participants.

The location of participants will also influence your decision. For example, if participants cannot all be in the same room, you might choose a teleconference or webinar. If **asynchronous delivery** (participants access the presentation at different times) is important, you might record a podcast. When choosing a technology-reliant channel, such as a teleconference or webinar, be sure to test your equipment and make sure each participant has access to any materials they need before you begin.

When your presentation is for a course assignment, often these issues are specified for you in the assignment. But if they aren't, you can consider the best format for your topic, content, and audience. Once you have chosen a format, make sure your message is right for your audience. You'll need to think about issues such as the following:

- What expectations will the audience have?
- What is the context of your communication?
- What does the audience already know about the topic?
- How is the audience likely to react to you and your message?

AUDIENCE Analysis Form

- **Analyze** – Who will receive your message?
- **Understand** – What do they already know or understand about your intended message?
- **Demographics** – What is their age, gender, education level, occupation, position?
- **Interest** – What is their level of interest/investment in your message? (What's in it for them?)
- **Environment** – What setting/reality is your audience immersed in and what is your relationship to it? What is their likely attitude to your message? Have you taken cultural differences into consideration?

- **Need** – What information does your audience need? How will they use the information?
- **Customize** – How do you adjust your message to better suit your audience?
- **Expectations** – What does your audience expect from you or your message?

Here is an [Audience Analysis Form template](#) to fill out.

Next, you'll consider the style of your presentation. Some of the things you discovered about yourself as a speaker in the self-awareness exercises earlier will influence your presentation style. Perhaps you prefer to present formally, limiting your interaction with the audience, or perhaps you prefer a more conversational, informal style, where discussion is a key element. You may prefer to cover serious subjects, or perhaps you enjoy delivering humorous speeches. Style is all about your personality!

Finally, you'll select a tone for your presentation. Your voice, body language, level of self-confidence, dress, and use of space all contribute to the mood that your message takes on. Consider how you want your audience to feel when they leave your presentation, and approach it with that mood in mind.

Presentation Purpose

Your presentation will have a general and specific purpose. Your general purpose may be to inform, persuade, or entertain. It's likely that any speech you develop will have a combination of these goals. Most presentations have a little bit of entertainment value, even if they are primarily attempting to inform or persuade. For example, the speaker might begin with a joke or dramatic opening, even though their speech is primarily informational.

Your specific purpose addresses *what* you are going to inform, persuade, or entertain your audience with—the main topic of your speech. Each example below includes two pieces of information: first, the general purpose; second, the specific purpose.

Examples

To *inform* the audience about my favourite car, the Ford Mustang.

To *persuade* the audience that global warming is a threat to the environment.

Timing

Aim to speak for 90 percent of your allotted time so that you have time to answer audience questions at the end (assuming you have allowed for this). If audience questions are not expected, aim for 95 percent. Do not go overtime—audience members may need to

be somewhere else immediately following your presentation, and you will feel uncomfortable if they begin to pack up and leave while you are still speaking. Conversely, you don't want to finish too early, as they may feel as if they didn't get their "money's worth."

To assess the timing of your speech as you prepare, you can

- Set a timer while you do a few practice runs, and take an average.
- Run your speech text through an online speech timer.
- Estimate based on the number of words (the average person speaks at about 120 words per minute).

You can improve your chances of hitting your time target when you deliver your speech, by marking your notes with an estimated time at certain points. For example, if your speech starts at 2 p.m., you might mark 2:05 at the start of your notes for the body section, so that you can quickly glance at the clock and make sure you are on target. If you get there more quickly, consciously try to pause more often or speak more slowly, or speed up a little if you are pressed for time. If you have to adjust your timing as you are delivering the speech, do so gradually. It will be jarring to the audience if you start out speaking at a moderate pace, then suddenly realize you are going to run out of time and switch to rapid-fire delivery!

Incorporating Backchannels

Have you ever been to a conference where speakers asked for audience questions via social media? Perhaps one of your teachers at school has used Twitter for student comments and questions, or has asked you to vote on an issue through an online poll. Technology has given speakers new ways to engage with an audience in real time, and these can be particularly useful when it isn't practical for the audience to share their thoughts verbally—for example, when the audience is very large, or when they are not all in the same location.

These secondary or additional means of interacting with your audience are called **backchannels**, and you might decide to incorporate one into your presentation, depending on your aims. They can be helpful for engaging more introverted members of the audience who may not be comfortable speaking out verbally in a large group. Using publicly accessible social networks, such as a Facebook Page or Twitter feed, can also help to spread your message to a wider audience, as audience members share posts related to your speech with their networks. Because of this, backchannels are often incorporated into conferences; they are helpful in marketing the conference and its speakers both during and after the event.

There are some caveats involved in using these backchannels, though. If, for example, you ask your audience to submit their questions via Twitter, you'll need to choose a hashtag for them to append to the messages so that you can easily find them. You'll also need to have an assistant who will sort and choose the audience questions for you to answer. It is much too distracting for the speaker to do this on their own during the presentation. You could, however, respond to audience questions and comments after the presentation via social media, gaining the benefits of both written and verbal channels to spread your message.

Developing the Content

Creating an Outline

As with any type of messaging, it helps if you create an outline of your speech or presentation before you create it fully. This ensures that each element is in the right place and gives you a place to start to avoid the dreaded blank page. Here is an outline template that you can adapt for your purpose. Replace the placeholders in the *content* column with your ideas or points, then make some notes in the *verbal and visual delivery* column about how you will support or emphasize these points using the techniques we've discussed. This outline is appropriate for a presentation meant to inform or persuade. You'll note this is similar to an outline for a research paper.

Presentation Outline

Section	Content	Verbal and Visual Delivery
Introduction	<ul style="list-style-type: none">• Attention-grabber• Main idea• Common ground	
Body	<ul style="list-style-type: none">• I. Main idea: Point 1• Sub-point 1• A.1 specific information 1• A.2 specific information 2• II. Main idea: Point 2• Sub-point 1• B.1 specific information 1• B.2 specific information 2• III. Main idea: Point 3• Sub-point 1• C.1 specific information 1• C.2 specific information 2	
Conclusion	<ul style="list-style-type: none">• Summary of main points 1–3• Residual message/call-to-action	

Introduction

The beginning of your speech needs an attention-grabber to get your audience interested right away. Choose your attention-grabbing device based on what works best for your topic. Your entire introduction should be only around 10 to 15 percent of your total speech, so be sure to keep this section short. Here are some devices that you could try for attention-grabbers:

Examples of Attention Grabbers

Attention Grabber	Purpose	Examples
Subject statement	A subject statement is to the point, but not the most interesting choice.	We are surrounded by statistical information in today's world, so understanding statistics is becoming paramount to citizenship in the twenty-first century.
Audience reference	An audience reference highlights something common to the audience that will make them interested in the topic.	As human resource professionals, you and I know the importance of talent management. In today's competitive world, we need to invest in getting and keeping the best talent for our organizations to succeed.
Quotation	Share wise words of another person. You can find quotations online that cover just about any topic.	Oliver Goldsmith, a sixteenth-century writer, poet, and physician, once noted that "the true use of speech is not so much to express our wants as to conceal them."
Current event	Refer to a current event in the news that demonstrates the relevance of your topic to the audience.	On January 10, 2007, Scott Anthony Gomez Jr. and a fellow inmate escaped from a Pueblo, Colorado, jail. During their escape the duo attempted to rappel from the roof of the jail using a makeshift ladder of bed sheets. During Gomez's attempt to scale the building, he slipped, fell 40 feet, and injured his back. After being quickly apprehended, Gomez filed a lawsuit against the jail for making it too easy for him to escape.
Historical event	Compare or contrast your topic with an occasion in history.	During the 1960s and '70s, the United States intervened in the civil strife between North and South Vietnam. The result was a long-running war of attrition in which many American lives were lost and the country of Vietnam suffered tremendous damage and destruction. We saw a similar war waged in Iraq. American lives were lost, and stability has not yet returned to the region.
Anecdote, parable, or fable	An anecdote is a brief account or story of an interesting or humorous event, while a parable or fable is a symbolic tale designed to teach a life lesson.	<p>In July 2009, a high school girl named Alexa Longueira was walking along a main boulevard near her home on Staten Island, New York, typing in a message on her cell phone. Not paying attention to the world around her, she took a step and fell right into an open manhole (Witney, 2009).</p> <p>The ancient Greek writer Aesop told a fable about a boy who put his hand into a pitcher of filberts. The boy grabbed as many of the delicious nuts as he possibly could. But when he tried to pull them out, his hand wouldn't fit through the neck of the pitcher because he was grasping so many filberts. Instead of dropping some of them so that his hand would fit, he burst into tears and cried about his predicament. The moral of the story? "Don't try to do too much at once" (Aesop, 1881).</p>
Surprising statement	A strange fact or statistic related to your topic that startles your audience.	<ul style="list-style-type: none"> • A Boeing 747 airliner holds 57,285 gallons of fuel. • The average person has over 1,460 dreams a year. • There are no clocks in any casinos in Las Vegas. • In 2000, Pope John Paul II became the most famous honorary member of the Harlem Globetrotters.
Question	You could ask either a question that asks for a response from your audience, or a rhetorical question, which does not need a response but is designed to get them thinking about the topic.	<ul style="list-style-type: none"> • Raise your hand if you have ever thought about backpacking in Europe. • If you prick us, do we not bleed? (Shakespeare, Merchant of Venice)

Humour	A joke or humorous quotation can work well, but to use humour you need to be sure that your audience will find the comment funny. You run the risk of insulting members of the audience, or leaving them puzzled if they don't get the joke, so test it out on someone else first!	"The only thing that stops God from sending another flood is that the first one was useless." —Nicolas Chamfort, sixteenth-century French author
Personal reference	Refer to a story about yourself that is relevant to the topic.	In the fall of 2008, I decided that it was time that I took my life into my own hands. After suffering for years with the disease of obesity, I decided to take a leap of faith and get a gastric bypass in an attempt to finally beat the disease.
Occasion reference	This device is only relevant if your speech is occasion-specific, for example, a toast at a wedding, a ceremonial speech, or a graduation commencement.	Today we are here to celebrate the wedding of two wonderful people.

The above provides several options for attention-grabbers, but remember you likely only need one. After the attention-getter comes the rest of your introduction. It needs to do the following:

- Capture the audience's interest
- State the purpose of your speech
- Establish credibility
- Give the audience a reason to listen
- Signpost the main ideas

Body

For post-secondary students, your class presentation is likely to fulfill an assignment such as presenting the findings of a research paper or summarizing a class unit. It is important to realize that your presentation does not need to include *all* of your information. In fact, it is unwise (and very boring) to read your whole research paper in your presentation. Choose the important and interesting things to highlight in your presentation.

Your audience will think to themselves, *Why should I listen to this speech? What's in it for me?* One of the best things you can do as a speaker is to answer these questions early in your body, if you haven't already done so in your introduction. This will serve to gain their support early and will fill in the blanks of *who, what, when, where, why, and how* in their minds.

You can use the outline to organize your topics. Gather the general ideas you want to convey. There is often more than one way to organize a speech. Some of your points could be left out, and others developed more fully, depending on the purpose and audience. You will refine this information until you have the number of main points you need. Ensure that they are distinct, and balance the content of your speech so that you spend roughly the same amount of time addressing each. Make sure to use parallel structure to make sure each of your main points is phrased in the same way. The last thing to do when working on your body is to make sure your points are in a logical order, so that your ideas flow naturally from one to the next.

Practical Examples

Depending on the topic, it is often useful to use practical examples to demonstrate your point. If your presentation is about the impacts of global warming, for example, it would be wise to mention some familiar natural disasters that are linked to global warming. If your presentation is about how to do a good presentation, you could mention several specific examples of things that could go

wrong if the presenter isn't organized. These practical examples help the audience relate the content to real life and understand it better.

Using Humour

If appropriate, using humour in the presentation is often a welcome diversion from a serious topic. It lightens the mood, often helps relieve anxiety, and creates engagement with the audience. It needs to be used sparingly and tastefully. Humour is often an area that can offend, so run your ideas past others before incorporating it into your presentation.

Presentation Conclusion

You will want to conclude your presentation on a high note. You'll need to keep your energy up until the very end of your speech. In your conclusion, you will want to reiterate the main points of your presentation. This will help to tie together the concepts for your audience. It will also help them realize you are wrapping it up. It is often a good idea to leave them with a final thought or call to action, depending on the general purpose of your message. Lastly, remember to be clear that it is the end of your presentation. Don't end it by throwing one last piece of information or it will seem like you've left it hanging. End with a general statement about the topic or a thought to ponder. Ending with "thank you" also lets them know it's the end. Once you have completed your question, you can invite questions and comments from the audience if appropriate.

Summary

In this section you considered the importance of FAST and AUDIENCE tools in helping to lay out a strategy that incorporates your own understanding with the needs of the audience. You learned about how to use an outline to stay organized and keep track of your ideas, as well as general and specific purposes. You learned the importance of sustaining your audience's attention throughout the presentation with key approaches you can take as you write your introduction, body, and conclusion. You should now be prepared to take your strategy to the next level by ensuring you next consider whether and how to incorporate high-quality presentation aids.

- FAST (Format, Audience, Style, Tone) is a useful approach for ensuring your presentation strategy is comprehensive.
 - Doing an audience analysis using the AUDIENCE tool helps us to better understand what's in it for them.
 - Using an outline is a good way to stay organized while you write your speech.
 - Your presentation intro should include an appropriate attention grabber in the introduction. There are several types to choose from.
 - The body of your presentation should be organized and structured appropriately, presenting the main ideas and their related specifics in an orderly manner.
 - The conclusion should include a summary of the main points along with a residual message or call to action.
 - Always aim to conclude on a high note.
-

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14.4 PRESENTATION AIDS

Presentations can be enhanced by the effective use of **visual aids**. These include handouts, drawings on the whiteboard, PowerPoint slides, memes, short video clips, and many other types of props. Once you have chosen a topic, consider how you are going to show your audience what you are talking about. Visuals can provide a reference, illustration, or image to help the audience to understand and remember your point.

Visual aids accomplish several goals:

- Make your speech more interesting
- Enhance your credibility as a speaker
- Guide transitions, helping the audience stay on track
- Communicate complex information in a short time
- Reinforce your message
- Encourage retention

Emphasis, Support, and Clarity

The purpose for each visual aid should be clear and speak for itself. If you can't quickly link the purpose of a visual aid to the verbal message, consider whether it should be used. Visual aids can be distracting or confusing if they are not clearly connected to what you are saying.

Perhaps you want to highlight a trend between two related issues, such as socioeconomic status and educational attainment. You might show a line graph that compares the two, showing that as socioeconomic status rises, educational attainment also rises. People learn in different ways. Some of us learn best using visual stimuli; others learn by taking notes or by using tactile objects. So, by using visuals to support your presentation and, if possible, tactile aids or demos, you can help a more significant proportion of the audience learn about your topic.

Clarity is key in the use of visual aids. Limit the number of words on your slides. Some people even state their rule of thumb is no more than 10 words per slide, with a font large enough to be read at the back of the room or auditorium. Generally you should include no more than five to seven lines of text per slide. People often make the mistake of trying to cram too much information on a slide, which causes the audience to zone out. Test that your slides are readable in the environment you will be using.

Methods and Materials

Slide Decks

The most common visual aid used in presentations, **slide decks**, may be developed using software such as PowerPoint, Keynote, Prezi, or Google Slides. These tools allow you to show text, images, and charts and even to play audio or video files. They are an excellent enhancement to your presentation, but they do sometimes encounter a glitch. Computers sometimes fail to work as planned, so make sure you have a whiteboard or handout as a backup in case of any technical issues. Minimize the risk by testing out equipment ahead of time.

Also, remember that these are an *aid* to your central, verbal message. Resist the urge to read directly from them with your back to the audience, or to pack slides full of text in lieu of speaking all of the information you want to get across.

Flip Charts, Whiteboards, and Large Prints

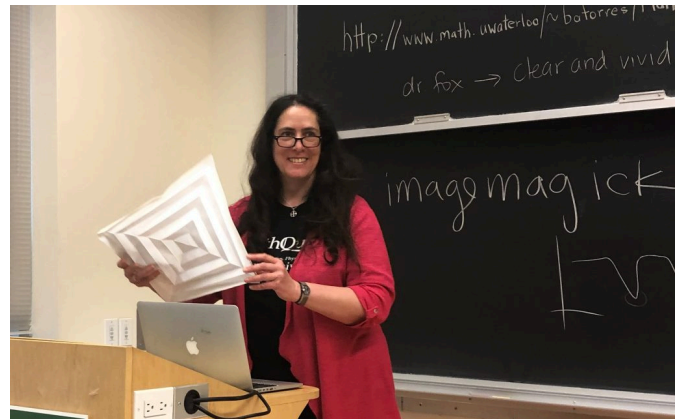
Flip charts and whiteboards are a good choice when you don't have access to a computer and projector. Alternatively, you can print some visual aids like charts and graphs in large sizes and show them during your presentation. If you plan to get a lot of audience input and want to write or draw things out, then a whiteboard is an ideal choice. But make sure your writing is large enough to be seen at the back of the room and that it is easy to read.

Handouts

If it will be helpful for your audience to refer to the information you're sharing at a later date, they'll appreciate it if you leave them with a handout. Decide whether it is better to give handouts to the audience at the beginning or end of your speech. If your handout is comprehensive and they have detailed notes in front of them, they can be distracted by reading and tune you out, so it's better to wait until the end to distribute them. Let the audience know at the beginning of the speech that you'll provide it at the end. This will relieve them from having to capture all your content by taking notes, and keep their attention focused on you while you speak. If your handouts are the presentation slides with just the main points, it may be better to hand them out at the beginning so that your audience can use them to add in additional points.

Demonstrations and Tactile Aids

If your presentation is about how to do something, for example, how to cook a particular dish or how to use a tool, you will want to show the audience a demonstration. Sometimes it is helpful to pass around a tactile aid, for example, a model. These can be very helpful if you want your audience to learn by doing. Make sure to pass items around during pauses in your presentation so that you don't lose the audience's attention. If audience members need to move around to use a tactile aid, make sure the location has enough space to make this possible.



Visual aids capture interest and demonstrate concepts.

Using Visual Aids

Designing Slide Decks

Using PowerPoint or a similar program, you'll be able to import, or cut and paste, words from text files, images, or video clips to represent your ideas. You can even incorporate web links.

At first, you might be overwhelmed by the possibilities, and you might be tempted to use all the bells, whistles, and sounds, not to mention the flying and animated graphics. If used wisely, a simple transition can be effective, but if used indiscriminately, it can annoy the audience to the point where they cringe in anticipation of, e.g. the sound effect at the start of each slide.

Stick to one main idea per slide. The presentation is for the audience's benefit, not yours. Pictures and images can be understood more quickly and easily than text, so you can use this to your advantage as you present.

If you develop a slide deck for your presentation, test these out in the location beforehand, not just on your own computer screen, as different computers and software versions can make your slides look different than you expected. Allow time for revision based on what you learn.

Your visual aids should meet the following criteria:

- **Big.** Make it legible for everyone, even the back row.
- **Clear.** The audience should “get it” the first time they see it.
- **Simple.** Simplify concepts rather than complicating them.
- **Consistent.** Use the same visual style throughout.

Font

Another consideration that you’ll need to make when designing your slide decks is font. As previously mentioned, think about the people at the back of the room when choosing the size of your text, to make sure it can be read by everyone.

A common mistake that presenters make is to use decorative fonts, or to incorporate many different fonts in their slides. This not only creates a mixed message for the audience but also makes your message difficult to read. Choose legible, common fonts that do not have thin elements that may be difficult to see.

Colour

When considering your choice of colours to use, legibility must be your priority. Contrast can help the audience read your key terms more easily. Make sure the background colour and the images you plan to use complement each other. Repeat colours, from your graphics to your text, to help unify each slide. To reduce visual noise, try not to use more than two or three colours.

Blue-green colour blindness, and red-green colour blindness are fairly common, so avoid using these colour combinations if it is important for the audience to differentiate between them. If you are using a pie chart, for example, avoid putting a blue segment next to a green one. Use labelling, so that even if someone is colour blind, they will be able to tell the relative sizes of the pie segments and what they signify.

Helpful Hints

Visual aids can be a powerful tool when used effectively but can run the risk of dominating your presentation. Consider your audience and how the portrayal of images, text, graphic, animated sequences, or sound files will contribute or detract from your presentation. Here are some hints to keep in mind as you prepare yours.

- Keep it simple.
- Use one idea per slide.
- Avoid clutter.
- Use large, bold fonts that can be read from at least 20 feet away.
- Use colours that work well together.
- Avoid using clip art. It can look hokey.
- Proofread each slide with care.
- Test in the presentation room beforehand.
- If you are using a computer and/or projector for your visual aids, test it beforehand. Have a hard copy of your presentation in case the computer has technical difficulties.
- Mark the floor with tape beforehand to mark the best spot to have the projector once you’ve tested it.

Summary

Using visual aids takes time and practice. The more you practise before your speech, the more comfortable you will be with your visual aids and the role they serve. Know your material well enough that you refer to your visual aids, not rely on them.

- Visual aids include handouts, whiteboard drawings, slide decks, video clips, and more.
- Visual aids should provide emphasis, clarity, and support to your presentation strategy.
- Popular slide decks include PowerPoint, Prezi, and Google Slides.
- Avoid using more than two or three colours to keep visual “noise” low.
- Slide decks should be (1) big (type font); (2) clear; (3) simple and consistent.

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14.5 DELIVERING THE PRESENTATION

This section focuses on what to do when presentation day finally arrives. You should be well-prepared and well-poised to communicate interpersonally with a live audience.

You will first learn about how to prepare to present by taking a deeper look at what you should be doing during rehearsals, and considering how you'll dress comfortably and professionally and how your setup will keep you prepared for what is ahead.

You will learn effective approaches to managing anxiety, such as how to cope with your body's reaction as well as how to cope with mistakes or surprises that may pop up in the speech, with the technology or through some other external distraction.

Having an understanding of how to read your audience for positive or negative cues is important during and after the presentation. You will learn about interpreting these cues by scanning the audience's body language during the presentation and during the Q&A.

Finally, you will have a chance to critically reflect on the delivery of a presentation by learning about how to do a self-analysis, as well as give and receive constructive verbal and non-verbal feedback.

Preparing to Present

Rehearsing

To deliver your presentation to the best of your ability, and to reduce your nerves once you take the stage, you need to practise by rehearsing. As you do, try to identify the weaknesses in your delivery to improve on them. For example, do you often mis-speak the same words (e.g. *pacific* for *specific*; *ax* for *ask*) or do your hands or feet fidget? Use your practice time to focus on correcting these issues. These sessions should help you get comfortable and help you remember what you want to say without having to constantly refer to notes.

Try practising in front of a mirror, or even recording yourself speaking to a camera and playing it back. It's also helpful to get feedback from a supportive audience at this stage. Perhaps a few family members or friends could watch you give your presentation and provide some feedback.

If at all possible, access the room where you will be presenting. This way you can get a feel for its setup and decide how you will stand or move during your presentation.

Dress for Success

While there are no definitive guidelines for how you should dress for your presentation, your appearance is an important part of your audience's first impression. If you want them to take you seriously, you'll need to look the part. While you don't have to wear a suit each time you present, there are some scenarios where this would be expected; for example, if you are presenting to a corporate audience who wear suits to work, you should do the same. You should dress one step above your audience. If your audience is going to be dressed casually in shorts and jeans, then wear nice casual clothing such as a pair of pressed slacks and a collared shirt or blouse. If your audience is going to be wearing business casual attire, then you should wear a dress or a suit. If you are presenting to your instructor and classmates, dress better than you normally would in class, to demonstrate you are taking this seriously and you are adding a level of formality.

Another general rule is to avoid distractions in your appearance. Clothing with loud colours and bold patterns, overly tight or revealing garments, or big jangling jewellery can distract your audience's attention from your message.

Setting Up Your Environment

Depending on the circumstances of your speech or presentation, you may have some choices to make about the environment. Perhaps you have a choice of meeting rooms that you can use, or perhaps you have only one option.

If you have some flexibility, it is helpful to think about what sort of environment would best help you get your message across. For example, if you are running a workshop, you might want to assemble participants in a circle to encourage collaboration and discussion. If you are holding a webinar, you'll need a quiet location with a strong internet connection and a computer system. It is imperative that you think about what facilities you need well before the day of your presentation arrives. You may have to book equipment or classrooms. Arriving to find that the equipment you expected isn't available is not a nice surprise for even the most experienced speaker!

If you have access to the location beforehand, you may need to move tables or chairs around to get things just the way you want them. You might choose to have a podium brought in, if you are aiming for a formal feel, for example, or you may need to position your flip chart. Double check that you have all the equipment you need, from whiteboard markers to speakers. It is far better if you can get comfortable with the room before your audience arrives, as this will make you feel more prepared and less nervous.

If you are using technology to support your presentation (i.e. PowerPoint slides or a projector), test everything before you begin. Do a microphone check and test its volume, view your slides on the computer you will be using, check any web links, play videos to test their sound, or make a call to test the phone connection prior to your teleconference. Your audience will get restless quickly if they arrive and are expected to wait while you fix a technical problem. This will also make you seem disorganized and hurt your credibility as an authoritative speaker.

Contingency Planning

Well before the day of your presentation, ask yourself, *What could go wrong?* This might sound like a way for a novice presenter to stress oneself out, but it can actually be very helpful. If you anticipate the worst-case scenario and are prepared for it, problems on the day of your presentation are less likely to bother you.

Many of the possible problems can be avoided with preparation. Make sure you have notes with you in case you need them. Dress professionally so that you feel good about how you are presenting yourself. Getting there early to set up and test the equipment will prevent many technical issues, but having a handout with you will make you feel even more comfortable in case you have problems with your slides. Bring a bottle of water in case your throat becomes dry or you need a moment to pause.

Most other problems can be prevented with practice. Rehearse so that you are not reliant on your notes. This way, if a note card goes missing, it's no big deal. During your rehearsals you'll get used to pacing yourself, pausing for breath, and monitoring the timing of your speech so that this comes more naturally once you get onstage.

During the Presentation

Managing Anxiety

Studies show that presenters' nervousness usually peaks at the anticipation stage that occurs one minute before the presentation. They further found that as the speech progresses, nervousness tends to go down. Here are some things you can do to help you manage your anxiety before the presentation:

- Practice/rehearse in similar conditions/setting as your speech
- Be organized
- Think positively
- Analyze your audience
- Adapt your language to speaking style

During the presentation itself, there are four main areas where you can focus attention in order to manage your anxiety:

1. Your body's reaction
2. Attention to the audience
3. Keeping a sense of humour
4. Common stress management techniques

Your Body's Reaction

Physical movement helps to channel some of the excess energy that your body produces in response to anxiety. If at all possible, move around the front of the room rather than remaining imprisoned behind the lectern or gripping it for dear life (avoid pacing nervously from side to side, however). Move closer to the audience and then stop for a moment. If you are afraid that moving away from the lectern will reveal your shaking hands, use note cards rather than a sheet of paper for your outline. Note cards do not quiver like paper, and they provide you with something to do with your hands. Other options include vocal warm-ups right before your speech, having water (preferably in a non-spillable bottle with a spout) nearby for a dry mouth, and doing a few stretches before going on stage.

Deep breathing will help to counteract the effects of excess adrenaline. You can place cues or symbols in your notes, such as “slow down” or ☺, that remind you to pause and breathe during points in your speech. It is also a good idea to pause a moment before you get started, to set an appropriate pace from the onset. Look at your audience and smile. It is a reflex for some of your audience members to smile back. Those smiles will reassure you that your audience members are friendly.

Attention to the Audience

During your speech, make a point of establishing direct eye contact with your audience members. By looking at individuals, you



Presenting with passion

establish a series of one-to-one contacts similar to interpersonal communication. An audience becomes much less threatening when you think of them not as an anonymous mass but as a collection of individuals.

A gentleman once shared his worst speaking experience: Right before the start of his speech, he reached the front of the room and forgot everything he was supposed to say. When asked what he saw when he was in the front of the room, he gave a quizzical look and responded, “I didn’t see anything. All I remember is a mental image of me up there in the front of the room blowing it.” Speaking anxiety becomes more intense if you focus on yourself rather than concentrate on your audience and your material.

Keeping a Sense of Humour

No matter how well we plan, unexpected things happen. That fact is what makes the public speaking situation so interesting. When the unexpected happens to you, do not let it rattle you. At the end of a class period late in the afternoon of a long day, a student raised her hand and asked the professor if he knew that he was wearing two different-coloured shoes, one black and one blue. He looked down and saw that she was right; his shoes did not match. He laughed at himself, complimented the student on her observational abilities, and moved on with the important thing, the material he had to deliver. People who can laugh at themselves often endear themselves to their audience.

Stress Management Techniques

Even when we use positive thinking and are well prepared, some of us still feel a great deal of anxiety about public speaking. When that is the case, it can be more helpful to use stress management than to try to make the anxiety go away.

Here are two main tools that can help:

- *Visualization*: Imagine the details of what a successful speech would look and sound like from beginning to end; a way of hypnotizing yourself into positive thinking by using your mind’s eye to make success real.
- *Systematic desensitization*: Gradual exposure to the thing that causes fear—in this case, giving a speech—can ultimately lead to decreased anxiety. Basically, the more practice you get speaking in front of people, the less fear and anxiety you’ll have about public speaking. Organizations like Toastmasters, that help people confront their fears by providing a supportive environment to learn and practise, are a good option if you have a true phobia around presenting or public speaking.

Using a Microphone

Conditions such as the size of the room and how far away your audience will be sitting should determine whether or not you need a microphone. Many people make the mistake of thinking they don’t need a mic because they can talk loud enough for everyone to hear. They are usually wrong. Unless the crowd is very small, it benefits you to use a microphone. It is very frustrating for people to be watching a presentation that they can’t hear.

If you are using a microphone during your speech, there are a few cautions to be aware of. First, make sure you do a sound check and that you know how the microphone works—how to turn it on and off, how to mute it, and how to raise or lower it. If possible, have it positioned to the height you need before you go onstage. Make sure the microphone does not block your face.

Make sure to find the optimum distance from the microphone to your mouth. This will vary with different sound equipment. For some, the mic needs to be right up against the mouth to get good sound quality. For others, this will cause screeching feedback or will pick up your breathing noises. If you will be using a clip-on microphone (called a lavalier mic), you’ll need to wear something with a lapel or collar that it can be clipped to. Make sure your hair and jewellery are out of the way to avoid rustling noises, and place the lavalier microphone 8 to 10 inches below your chin.

If the microphone is on a stand, make sure it is set to the appropriate height. If it is set too high, it is distracting to the audience and if it's too short, it will cause you to hunch over it, creating bad posture and an uncomfortable position. Often you can take the mic off the stand and use it as a handheld model, which allows you to move around a little more. Doing a sound check and getting comfortable with the equipment before you go onstage will prevent the majority of errors when using a microphone.

Coping with Mistakes and Surprises

Even the most prepared speaker will encounter unexpected challenges from time to time. Here are a few strategies for combating the unexpected in your own presentations.

Speech Content Issues

What if a note card goes missing or you skip important information from the beginning of your speech? While situations like these might seem like the worst nightmare of a novice public speaker, they can be overcome easily. Pause for a moment to think about what to do. Is it important to include the missing information, or can it be omitted without hindering the audience's ability to understand your speech? If it needs to be included, does the information fit better now or in a later segment? If you can move on without the missing element, that is often the best choice, but pausing for a few seconds to decide will be less distracting to the audience than sputtering through a few "ums" and "uhs." Situations like these demonstrate why it's a good idea to have a glass of water with you when you speak. Pausing for a moment to take a sip of water is a perfectly natural movement, so the audience may not even notice that anything is amiss.

Technical Difficulties

Technology has become a very useful aid in public speaking, allowing us to use audio or video clips, presentation software, or direct links to websites. But it does break down occasionally! Web servers go offline, files will not download, or media contents are incompatible with the computer in the presentation room. Always have a backup plan in case of technical difficulties. As you develop your speech and visual aids, think through what you will do if you cannot show a particular graph or if your presentation slides are garbled. Your beautifully prepared chart may be superior to the verbal description you can provide; however, your ability to provide a succinct verbal description when technology fails will give your audience the information they need and keep your speech moving forward.

External Distractions

Unfortunately, one thing that you can't control during your speech is audience etiquette, but you *can* decide how to react to it. Inevitably, an audience member will walk in late, a cell phone will ring, or a car alarm will go off outside. If you are interrupted by external events like these, it is often useful and sometimes necessary to pause and wait so that you can regain the audience's attention.

Whatever the event, maintain your composure. Do not get upset or angry about these glitches. If you keep your cool and quickly implement a "plan B" for moving forward, your audience will be impressed.

Reading Your Audience

Recognizing your audience's mood by observing their body language can help you adjust your message and see who agrees with you, who doesn't, and who is still deciding. With this information, you can direct your attention—including eye contact and questions—to the areas of the room where they can have the most impact.

As the speaker, you are conscious that you are being observed. But your audience members probably don't think of themselves as being observed, so their body language will be easy to read.

Questions and Discussion

As a presenter, it's a good idea to allow a little time at the end of your presentation to invite questions from the audience and to facilitate a little discussion about the topic. If possible and applicable you can include a bit of interactivity with the audience during the presentation. This goes a long way to getting the audience engaged and interested in the topic.

There are three important elements to think about when incorporating Q&A's as part of your presentation:

Audience Expectations

At the beginning of your speech, give the audience a little bit of information about who you are and what your expertise on the subject is. Once they know what you do (and what you know), it will be easier for the audience to align their questions with your area of expertise—and for you to bow out of answering questions that are outside of your area.

Timing of Q&A's

Questions are easier to manage when you are expecting them. Unless you are part of a panel, meeting, or teleconference, it is probably easier to let the audience know that you will take questions at the end of your presentation. This way you can avoid interruptions to your speech that can distract you and cause you to lose time. If audience members interrupt during your talk, you can then ask them politely to hold on to their question until the Q&A session at the end.

Knowing How to Respond

Never pretend that you know the answer to a question if you don't. The audience will pick up on it! Instead, calmly apologize and say that the question is outside of the scope of your knowledge but that you'd be happy to find out after the presentation (or, suggest some resources where the person could find out for themselves).

If you are uncertain about how to answer a question, say something like "That's really interesting. Could you elaborate on that?" This will make the audience member feel good because they have asked an interesting question, and it will give you a moment to comprehend what they are asking.

Sometimes presenters rush to answer a question because they are nervous or want to impress. Pause for a moment, before you begin your answer, to think about what you want to say. This will help you to avoid misinterpreting the question, or taking offence to a question that is not intended that way.

A final tip is to be cautious about how you answer, so that you don't offend your audience. You are presenting on a topic because you are knowledgeable about it, but your audience is not. It is important not to make the audience feel inferior because there are things that they don't know. Avoid comments such as "Oh, yes, it's really easy to do that..." Instead, say something like "Yes, that can be tricky. I would recommend..." Also, avoid a bossy tone. For example, phrase your response with "What I find helpful is..." rather than "What you should do is..."

Critiquing a Presentation

Self-Analysis

It is often said that we are our own worst critic. Many people are hard on themselves and may exaggerate how poorly a speech or presentation went. Other times, there's not much exaggeration. In both cases it helps to examine your performance as presenter after the presentation.

You may want to ask yourself:

- Did you make the most of your unique voice? Did the audience seem to understand you?
- Did you make the most of using body language? Did your body confidently support what you were saying?
- Did you use a coherent structure? Did the audience seem to make sense of your presentation? Was it logical?
- Did you show enthusiasm? Did you show the audience you cared about your presentation?
- Did you demonstrate expertise? Did you show your credibility by citing reliable sources and making a distinction between facts and your opinion?
- Did you show that you practised and prepared? Did your confidence show because you implemented a plan that included sufficient rehearsal, contingency plans, and other success strategies?

Honestly asking yourself these questions with the intention of uncovering your strengths and weaknesses should help you to become a better presenter. While it is important to review other kinds of feedback, whether from the audience, your peers, or an instructor, it is also useful to have a realistic understanding of your own performance. This understanding is part of gaining experience and improving as a presenter.

Feedback from Others

As well as doing some self-analysis, it is a good idea to get feedback from others. If your presentation was for your class, you will likely get feedback from your instructor who is marking you. You may also get some feedback from classmates. It would also be wise to ask someone that you trust, who was in the audience, to give you feedback. You can learn a lot from what others tell you. They may have noticed a distracting habit such as twirling your hair, or putting your hands in your pockets, or a lot of ummms. They may also have noticed some real strengths of your presentation that you may not have considered. Whether the comments are positive or constructive criticism, they can be helpful for focusing on, in your next presentation.

Receiving Feedback

Being open to receiving feedback is the only way to have a better picture of your performance as a presenter or speaker. Combining self-analysis with the feedback of your audience or peers is your opportunity to better understand your strengths as a presenter and what resonated well with your audience.

When receiving and making sense of feedback, it is very important to be self-aware and honest with yourself. This honesty will help you distinguish between an environmental situation, a situation that lies with the audience member, or a situation with the presenter.

Summary

In this section you learned about useful tools, such as rehearsing, dressing appropriately, and having a contingency plan, that helps you prepare to present to a live audience. You examined approaches that would be useful during the presentation itself, such as keeping a good sense of humour and focusing your attention on your audience to manage anxiety, and what steps to take for a critical review afterwards to close the feedback loop.

- Preparing to present includes rehearsing, deciding what to wear, how to set up the environment, and making an appropriate contingency plan.
- Keeping attention on your audience, a good sense of humour, and knowing stress management techniques are good ways of managing anxiety.
- Mistakes or surprises can happen with the speech, the technology, or through external distractions.
- To effectively critique a presentation, it's good to balance self-analysis with constructive feedback from others.

Further Reading and Links

If you would like to read more tips for great presentations see:

- [Presentation Skills](#)

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14.6 KNOWLEDGE CHECK

This chapter on how to prepare for and deliver well-executed presentations examined the aspects of interpersonal presentation skills, such as your own verbal and non-verbal presentation behaviours. This knowledge allowed you to move on to planning the presentation strategy. You did this by using tools such as FAST and AUDIENCE, respectively. With these frameworks in place, you began to brainstorm and keep track of your ideas using an outline to write your presentation. This included writing an attention-grabbing intro, a body to develop your main point or theme, and a conclusion that ended on a high note.

Presentation Aids were introduced by focusing on visuals or other tools that can aid your presentation by lending emphasis, clarity, and support. You learned about several tools and techniques, such as how to use slide decks (e.g., PowerPoint) and colours effectively to support your presentation. Lastly, you read the section on delivering the presentation, which included learning how to prepare to present, how to manage anxiety, and how to cope with mistakes.

What you've learned in this chapter will serve as good preparation for future presentations, whether they be at college, university, work, church, or in many other circumstances. Finally, never give up the opportunity to make a presentation. It's natural that your first instinct is to say no, but the more you make presentations, the more comfortable with it you'll become making them. It is actually a pretty nice skill to develop.

Good Presentation Tips

Delivering a good presentation involves many factors.

- Interpersonal skills required include: physical presence, speaking skills, engaging the audience, using a variety of visuals, and facilitating questions and answers.
- Forward planning is key. First presenters need to decide on the type of communication format. Planning the presentation also includes: an effective outline, a strong introduction, a functional organized body, and a strong conclusion.
- Presentation aids should be developed to portray professionalism and increase impact on the audience. Visual aids should be chosen to fit well with the topic and vibe, and should enhance the quality of the presentation.
- During the delivery of the presentation, considering the audience's needs will help make the presentation more relevant. Dealing with mistakes and misfortunes is part of the process and should be handled with flexibility and humour.
- Invariably something in a presentation doesn't go as well as you would have liked. However, you likely did many things well and still pulled it off. The mistakes are factors to learn from, and help your next presentation go even better. You only get good at delivering presentations by delivering presentations – and critiquing, evaluating, and improving each time.



Reflective Practice



An interactive H5P element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=451#h5p-43>



Applying Your Knowledge



An interactive H5P element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=451#h5p-40>

Glossary

Asynchronous Delivery

Backchannels

FAST

Gesture

Non-verbal Cues

Slide Decks

Visual Aids

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CHAPTER 15: DECISION MAKING AND PROBLEM SOLVING

Chapter Outline

[15.0 Introduction](#)

[15.1 Types of Thinking](#)

[15.2 Decision Making and Solving Problems](#)

[15.3 Contingency Planning vs Crisis Management](#)

[15.4 Career Connection](#)

[15.5 Fanshawe Resources](#)

[15.6 Knowledge Check](#)

15.0 INTRODUCTION

Learning Objectives

In this chapter, we'll look more closely at several distinct types of thinking including creative, analytical, and critical thinking, all of which come into play for problem-solving. We'll also explore the multitude of resources available relative to understanding and enhancing your thinking skills, all of which constitutes metacognition, the practice of thinking about your thinking.

By the end of this chapter you should be able to:

- Describe *thinking* as a process and the reasons it is important
- Define *creative thinking*, *analytical thinking*, and *critical thinking*
- Describe how *creative thinking*, *analytical thinking*, and *critical thinking* are used in problem solving
- Describe the best approaches to *problem-solving*
- Define *metacognition* and describe ways to become thoughtful about your thinking
- Identify resources that can help you take responsibility for complex problem solving
- Recognize how academic success connects to career success

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15.1 TYPES OF THINKING



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Thinking is one of those hard-to-pinpoint aspects of life we typically don't analyze much—like breathing or walking or sleeping. We constantly think, and becoming more attuned to how we think and what we do when we encounter new ideas is an excellent habit to pursue.

In this section, we will review three types of thinking we use every day: critical thinking, analytical thinking, and creative thinking.

Analytical Thinking

When we work through a problem by breaking it down into its component parts for separate analysis, we call that **analytical thinking**.

Characteristics of analytical thinking include:

1. identifying the parts,
2. researching options,
3. verifying the validity of any sources you reference.

We use analytical thinking in our everyday lives when we brainstorm, budget, detect patterns, plan, compare, work puzzles, and make decisions based on multiple sources of information. Think of all the thinking that goes into the logistics of applying to college—where to apply, what programs to apply to, the reputation of the school, what fees and information will be required, what prerequisites are required to apply—when choices and decisions are rapid-fire, but we do it relatively successfully all the time.

In the example above, you are breaking down the process into component parts or separate elements of a situation or problem. If you don't identify all parts of a problem, you run the risk of ignoring a critical element when you follow up on the solution.

Critical Thinking

Thinking critically includes some form of judgment that thinkers generate after carefully analyzing the perspectives, opinions, or experimental results present for a particular problem or situation. You use **critical thinking** every day when you choose what to wear to an interview vs what to wear to an 8 AM class. You used data (your understanding of how you may be perceived) to select, and you will validate your thinking if and when you do have a successful interview.

When you are reviewing your upcoming due dates you are constantly weighing options, consulting data, gathering opinions, making choices, and then evaluating those decisions about what to do first and how much time to spend on it, which is a general definition of critical thinking.

One component to keep in mind to guide your critical thinking is to determine the situation. What problem are you solving? When problems become complex and multifaceted, it is easy to be distracted by the simple parts that may not need as much thinking to resolve but also may not contribute as much to the ultimate problem resolution. What aspect of the situation truly needs your attention and your critical thinking?

Creative Thinking



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It's common to think of creativity as something used mostly by traditional artists—people who paint, draw, or sculpt. Indeed, artists are creative, but think of other fields in which people think just a little differently to approach situations in their discipline. Creative thinkers often seek out new ways to solve problems or identify a need that they want to fulfill. They are often entrepreneurs and “big idea” people.

You may not think you have a creative way to approach a situation, but if you were to bounce ideas off like-minded friends and also friends who would offer a completely different way of looking at something, you may discover that indeed you do have some good ideas ready to come to fruition. This creative brainstorming doesn't just happen though. You need to set aside specific times to work with others to flesh out ideas and think through obstacles.



Reflective Practice

How do you feel about the ways you think? Take this quick survey to figure it out, ranking questions on a scale of 1–4, 1 meaning “least like me” and 4 meaning “most like me.” These questions will help you determine how the chapter concepts relate to you right now. As you are introduced to new concepts and practices, it can be informative to reflect on how your understanding changes over time. We’ll revisit these questions at the end of the chapter to see whether your feelings have changed.

1. Which type of thinking do you think is most important for your academic studies?
 - a. Creative thinking
 - b. Analytical thinking
 - c. Critical thinking

2. In which area do you have the most difficulty being creative?
 - a. Writing
 - b. In-class discussions/activities
 - c. Personal life
 - d. Problem-solving
 - e. Finding resources/help

3. In which course areas or activities do you make the most use of problem-solving skills?
 - a. Math or quantitative classes
 - b. Computer or technical classes
 - c. Social science classes
 - d. Real-life situations

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15.2 DECISION MAKING AND SOLVING PROBLEMS



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Making Decisions and Solving Problems

Much of your college and professional life will be spent solving problems; some will be complex, such as deciding on a career, and require time and effort to come up with a solution. Others will be small, such as deciding what to eat for lunch, and will allow you to make a quick decision based entirely on your own experience. But, in either case, when coming up with the solution and deciding what to do, follow the same basic steps.

Problem Solving

- **Define the problem:** Use your analytical skills. What is the real issue? Why is it a problem? What are the root causes? What kinds of outcomes or actions do you expect to generate to solve the problem? What are some of the key characteristics that will make a good choice: Timing? Resources? Availability of tools and materials? For more complex problems, it helps to actually write out the problem and the answers to these questions. Can you clarify your understanding of the problem by comparing it to something you know?
- **Narrow the problem:** Many problems are made up of a series of smaller problems, each requiring its own solution. Can you break the problem into different facets? What aspects of the current issue are “noise” that should not be considered in the problem solution? What parts of your problem are facts, that you can research and what part is opinion? Make sure you are not going on assumption. Ask the experts, don’t guess! (Use critical thinking to separate facts from opinion in this step.)

- **Generate and research possible solutions:** List all your options even if they seem like something you would never do. You never know when a creative solution might be hidden in something you thought was silly. Use your creative thinking skills in this phase. Can any of these answers be combined into a stronger solution? What past or existing solutions can be adapted or combined to solve this problem?
- **Choose the best solution:** Use your critical thinking skills to select the most likely choices. List the pros and cons for each of your selections. How do these lists compare with the requirements you identified when you defined the problem? If you still can't decide between options, you may want to seek further input trusted friends and family, your professors or college counsellors.
- **Take Action!** The term “analysis paralysis” refers to over-analyzing (or over-thinking) the situation, or believing the one perfect solution is just one more internet search away, so that a decision or action is never finally taken, which resulting you making no decision.



As a paramedic you have to have good communication skills as well as quick problem solving skills when each situation can change in the matter of a few minutes and be time sensitive. A paramedic must be able to resolve conflict and work under pressure to help save lives on a daily basis.

Sarah Marrone

15.3 CONTINGENCY PLANNING VS CRISIS MANAGEMENT

When Setbacks Happen

Even when you have clear goals and are motivated and focused to achieve them, problems sometimes happen. Accept that they will happen, since inevitably they do for everyone. The difference between those who succeed by solving the problem and moving on and those who get frustrated and give up is partly attitude and partly experience — and knowing how to cope when a problem occurs. We learned about this in [Chapter 7](#) and can think of it as resiliency.

Resilient people see problems as challenges and use them as an opportunity to learn.

Planning Helps Avoid Problems

Some things happen that we cannot prevent. But many other kinds of problems can be prevented or made less likely to occur.

- You can take steps to stay healthy.
- You can take control of your finances and avoid most financial problems common among college students.
- You can learn how to build successful social relationships and get along better with your professors, with other students, and in personal relationships.
- You can learn and apply time management techniques to ensure you use your time effectively for studying.
- You can learn to do well in your classes with effective reading, notetaking, test-taking, and writing skills for classes.

By applying some of the strategies covered in the previous chapters, you have a better chance to prevent the problems that typically keep college students from succeeding.

Contingency Planning

Do you have a backup plan for when things go wrong (because they will at one point or another)? Your bus will be late, your car won't start, your kids will be sick, your laptop may break, your group members don't show up for a project, your internet goes down, etc.

Identifying potential problems and creating a back up plan will help you feel prepared. It might include:

- Getting to know your classmates, professors, and building a good social network of support.
- Knowing what resources are available to you if you need them and how to get in touch with them quickly.
- Reaching out immediately when the problem starts to become real to ask for help and gather options and help (i.e. my group member dropped the class last night and didn't complete their part of the project).
- Keeping everyone up to date as you work through the problem (i.e. I am heading into the college to use the internet and would like to request a short extension on the assignment).

Review the chapter on communication skills. Contingency planning starts with good communication to set expectations.

Crisis Management

Lots of different kinds of setbacks may happen while you're in college — just as to everyone in life.

- A financial crisis
- An illness or injury
- A crisis involving family members or loved ones
- Stress related to frequently feeling you don't have enough time
- Stress related to relationship problems

First, work to resolve the immediate problem:

Resolving the Immediate Problem

1. **Stay motivated and focused.** Don't let frustration, anxiety, or other negative emotions make the problem worse than it already is.
2. **Analyze the problem to consider all possible solutions.** An unexpected financial setback doesn't automatically mean you have to drop out of school – not when alternatives such as student loans, less expensive living arrangements, or other possible solutions may be available. Failing a midterm exam doesn't automatically mean you're going to fail the course – not when you make the effort to determine what went wrong, work with your professor and others on an improved study plan, and use better strategies to prepare for the next test.
3. **Seek help when you need to.** None of us gets through life alone, and it's not a sign of weakness to see your academic advisor or a college counsellor if you have a problem.
4. **When you've developed a plan for resolving the problem, work to follow through.** If it will take a while before the problem is completely solved, track your progress in smaller steps so that you can see you really are succeeding. Every day will move you one step closer to putting it behind you.

After you've solved a problem, reflect on what happened to develop a strategy that will help avoid the same problem in the future:

Reflection & Prevention

- **Be honest with yourself: how did you contribute to the problem?** Sometimes it's obvious: a student who drank heavily at a party the night before a big test failed the exam because he was so hung over he couldn't think straight. Sometimes the source of the problem is not as obvious but may become clearer the more you think about it. Another student did a lot of partying during the term but studied all day before the big test and was well rested and clearheaded at test time but still did poorly; he may not yet have learned good study skills. Another student has frequent colds and other mild illnesses that keep him from doing his best: how much better would he feel if he ate well, got plenty of exercise, and slept enough every night? If you don't honestly explore the factors that led to the problem, it's more likely to happen again.
- **Take responsibility for your life and your role in what happens to you.** Earlier we talked about people with negative attitudes, who are always blaming others, fate, or "the system" for their problems. It's no coincidence that they keep on having problems. Unless you want to keep having problems, don't keep blaming others.
- **Taking responsibility doesn't mean being down on yourself.** Failing at something doesn't mean you are a failure. We all fail at something, sometime. Adjust your attitude so you're ready to get back on track and feel happy that you'll never make that mistake again!
- **Make a plan.** You might still have a problem on that next big test if you don't make an effective study plan and stick to it. You may need to change your behaviour in some way, such as learning time management strategies.

College is meant to reflect real world work experiences. If you can't make it to work, you would contact work to let them know. Practice this skill while at school. Who would you add to your contingency team and crisis management team?

Create a list of important contact people that you can add to your phone or post where you can see it. This should include work, friends, family and school contacts. See the [Fanshawe Resources section](#) at the end of this chapter to help.

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15.4 CAREER CONNECTION

Career Connection

Complex Problem Solving – the 7 Job Skills for the Future in Action

Determining the best approach to any given problem and generating more than one possible solution to the problem constitutes the complicated process of problem-solving. However, you often use all of the 7 Job Skills for the Future when apply this skill to the workplace.

People who are good at these skills are highly marketable because many jobs consist of a series of problems that need to be solved for production, services, goods, and sales to continue smoothly.

Think about what happens when a worker at your favourite coffee shop slips on a wet spot behind the counter, dropping several drinks she just prepared. One problem is the employee may be hurt, in need of attention, and probably embarrassed; another problem is that several customers do not have the drinks they were waiting for; and another problem is that stopping production of drinks (to care for the hurt worker, to clean up her spilled drinks, to make new drinks) causes the line at the cash register to back up.

A good manager has to juggle all of these elements to resolve the situation as quickly and efficiently as possible. That resolution and return to standard operations doesn't happen without a great deal of thinking: prioritizing needs, shifting other workers off one station onto another temporarily, and dealing with all the people involved, from the injured worker to the impatient patrons.



Reflective Practice

What sort of thinking do you imagine initially helped in the following scenarios? How would the other types of thinking come into resolving these problems?

1. Mission Control reacting to the Apollo 13 emergency
 - a. Analytical thinking
 - b. Creative thinking
 - c. Critical thinking
2. Automakers coordinating the switch from fuel-based to electric cars
 - a. Analytical thinking
 - b. Creative thinking
 - c. Critical thinking
3. The construction of the New York subway system
 - a. Analytical thinking
 - b. Creative thinking
 - c. Critical thinking

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15.5 FANSHAWE RESOURCES

Expanding Your Support Team

Creating your personal support team will be important to help you through problems. Your professors and academic advisor should be at the top of that list! The contacts below will include some you have seen throughout the text and some may be new to you and require some additional investigation



[Financial Aid and Student Awards Office](#)

- Provides financial support and advice to help students fund their college education through government and donor funding and to recognize student excellence.
- Assist with the Ontario Student Assistance Program (OSAP), scholarships, grants, and bursaries as well as the Work Study program.
- Financial planning, including budget advising, is also available (Fanshawe College, n.d. -e).

[International Office](#)

- Recruiters and education advisors from around the world including China, India, Korea, Vietnam, Africa, Turkey, Russia, Ukraine and,
- Regulated International Student Immigration Advisor (RISIA), an Exchange Coordinator, International Student Life Coordinators, an International Admissions Team and an Arrival/Settlement Facilitator on our staff (Fanshawe College, n.d.-f).

[Registrar](#)

Our team of admissions, registration, and student record experts are **here for you** throughout your student journey.

- Help you learn ways to finance your tuition.
- Change or drop a course.
- Provide an employer or government agency with proof of your student status or transcript.
- Finalize the record for your program and issue your credential (Fanshawe College, n.d.-g).

15.6 KNOWLEDGE CHECK

Summary

Through this chapter you:

- Identified different types of thinking: analytical, critical and creative.
- Identified how these three thinking styles are used in a step by step problem solving model that you can apply to any situation.
- Identified the difference between contingency planning and crisis management.
- Recognized how to take an active role in the problem solving process, its importance in the workplace and identified sources of support at Fanshawe.

Video: How to Deal with Difficult Group Members

Watch this video below created by Simon Fraser University and answer the following questions. Including ideas from the video will mean adding in-text citations and references for a YouTube video to your writing. You can look up how to do that on the [APA website](#) or the [Fanshawe Library website](#).



One or more interactive elements has been excluded from this version of the text. You can view them online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=549#oembed-1>

Video: "[How to Deal With Difficult Group Project Members](#)" by [SFU Beedie School of Business](#) [3:35] *Transcript Available.*



Reflective Practice

Many students dread group work as working with others naturally creates conflict. Challenges can arise around time management (you like to start early, your group likes to work last minute), schedules not aligning, poor communication skills, personality conflicts, lack of interest or motivation or having different goals for the project.

Answer the reflection questions below in full sentences.



An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=549#h5p-21>



Applying Your Knowledge



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Glossary

Analytical Thinking

Contingency Planning

Creative Thinking

Crisis Management
Critical Thinking
Metacognition
Problem Solving

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CHAPTER 16: COMMUNICATION SKILLS – COLLABORATING WITH OTHERS

Chapter Outline

[16.0 Introduction](#)

[16.1 Communication Skills](#)

[16.2 Self-Assessment](#)

[16.3 The Communication Process](#)

[16.4 Opportunities for Effective Speaking](#)

[16.5 Opportunity for Active Listening](#)

[16.6 Online Discussion Forums](#)

[16.7 Team and Group Work in Action](#)

[16.8 Connecting and Communicating in Action](#)

[16.9 Career Connection](#)

[16.10 Fanshawe Resources](#)

[16.11 Knowledge Check](#)

16.0 INTRODUCTION

Learning Objectives

In this chapter you will learn about the communication process, what gets in the way and how to resolve conflict with others through effective communication strategies and ways you can connect while at Fanshawe College.

By the end of this chapter you will be able to:

- Identify the communication process and what can get in the way
- Define the forms and purpose of communication
- Articulate the variables to communication
- Evaluate and make informed decisions about your strengths and challenges when communicating with others
- Define a strategy to manage conflict with others to further develop your complex problem solving, novel and adaptive thinking, and social intelligence
- Define the forms and purpose of communication
- Understand how technology has changed communication
- Identify resources that can help you take responsibility for your own learning journey
- Recognize how academic success connects to career success

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16.1 COMMUNICATION SKILLS

Collaborating with Others

Communication has always been a complex life skill for everyone. How we pass information to others and how we understand what is being conveyed to us can often be complicated. And today, with the ever-increasing number of communication tools at our fingertips, our need to understand how, when, and what we communicate is even more crucial.

Well-honed communication skills can improve all aspects of your life. This is true regarding relationships with friends, significant others, family, acquaintances, people with whom you work, colleagues in your classes, and professors. In other words, everyone! Communication is probably the most important skill you can develop in your life.



Medical Radiation technologist not only work in multiple departments and modalities that require the technologist to clearly communicate with all professionals in a multidisciplinary setting it is imperative to be able to provide detailed instructions to people with diverse needs, all ages and sometimes vulnerable populations to ensure a detailed image can be produced for accurate diagnosis by the radiologist

One way you can develop your communication skills is to connect with your Fanshawe Student Union and become a class representative.

Video: Become a Class Rep



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=489#oembed-1>

Video: [Become a Class Rep](#) by [Fanshawe Student Union](#) [2:09] *Transcript Available.*

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16.2 SELF-ASSESSMENT



Reflective Practice

1. I think my mobile device is effective and appropriate for most communication. Why?
 - a. True
 - b. False
 - c. Sometimes, but it will depend on the situation.
2. I have a good sense of how to communicate in different environments/situations and know which communication style to use
 - a. True
 - b. False
 - c. Sometimes
3. I listen more than I talk.
 - a. True
 - b. False
 - c. Sometimes
4. I have a good communication strategy to help when conflicts arise and I can explain it to others.
 - a. True
 - b. False
 - c. Sometimes
5. Of the following methods, which is your preferred method of communication?
 - a. In person/face-to-face
 - b. Voice call
 - c. Video call
 - d. Email
 - e. Texting (including texting apps)
 - f. Social media environments
6. Which element of communication do you find most challenging?
 - a. Understanding the audience/situation and using the best form/tone to fit it

- b. Speaking in front of a group of people
 - c. Writing papers or reports
 - d. Listening and interpreting
7. I believe communicating is one of my top strengths
- 1. True
 - 2. False
 - 3. Sometimes

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16.3 THE COMMUNICATION PROCESS



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Earlier we looked at how important it is to follow the course communication expectations when formatting your emails to professors. This is the preferred method of communication with your Fanshawe contacts and maintains a record of communication. That means your ability to communicate effectively will depend on your ability to check your Fanshawe Online email daily.

What is required in every email subject line? If you don't remember, check your course communications expectations posted on your course site.

In the previous chapter, we learned about the various ways we are different and in this chapter, we will consider how these differences can impact how well we communicate.

To begin with, let's look at the following definition of communication:

"A process by which information is exchanged between individuals through a common system of symbols, signs, or behavior"

(Merriam-Webster. n.d.)

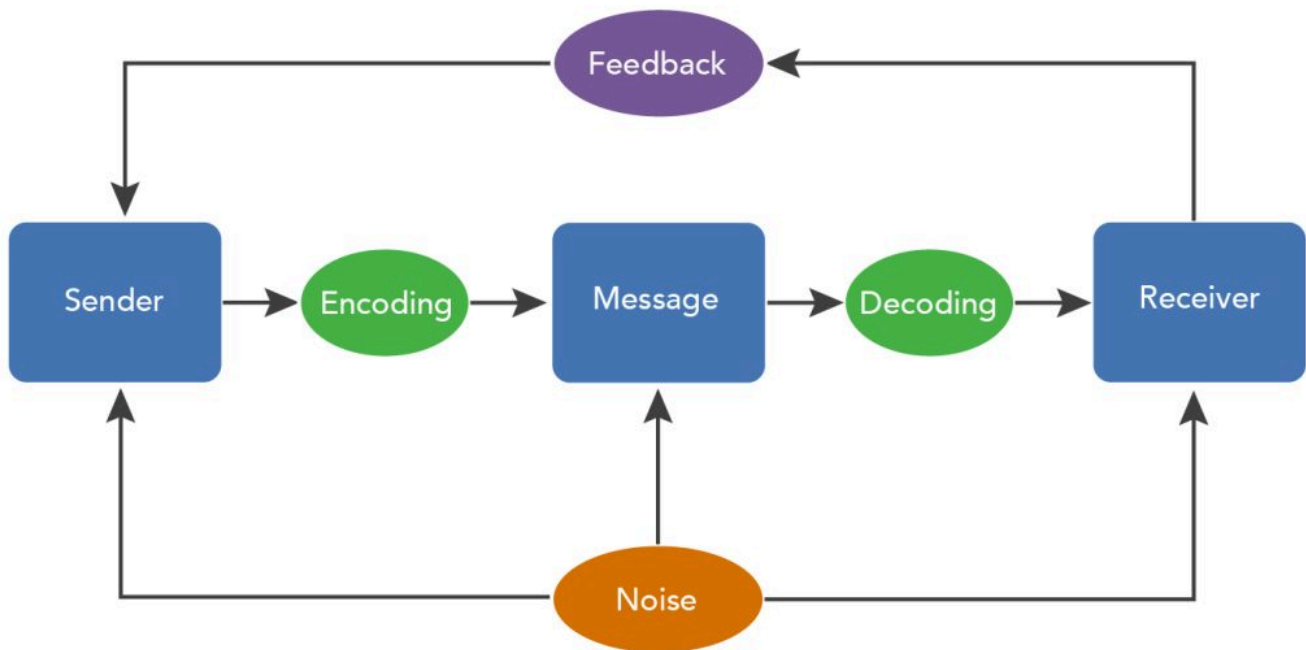
In its most simple terms, communication happens when there is at least one sender and one recipient, and in between, there is the message.

The diagram below provides additional details that are important to consider if we want to be able to communicate effectively.

If your professor has **encoded** the information they want you to know in a language you do not understand (the language of math, diagrams, gestures, words, etc.) you (the receiver) will have trouble **decoding** the message, and may provide feedback to the sender by using a confused face.

Communication is only effective if the sender encodes information in a way the receiver can decode it. Since we discovered throughout the text that we are all different, how can we improve the chance that our message is received and understood?

What about the part of this diagram that says “**noise**”? Noise is what gets in the way of the message getting through. It could be actual noise interference (like a loud argument in the hallway) but it could also be the speaker mumbling, the receiver being stressed out and thinking about something else, or anything else that prevents the clear transmission of the message or ability to decode it.



[The Communication Process](#)” By [Lumen Learning](#), CC-BY 4.0

Our ability to communicate can be improved if we consider the following:

- Messages can be sent vocally—voice, phone, face-to-face, over radio or television. It can come to us in a written format such as correspondence or printed or digital media. We obtain information visually in logos, pictures, maps, menus, and street signs. And, of course, we find ourselves learning things non-verbally by observing body language, tone of voice, gestures, and so forth.
- The kind of communication tool you choose to use also has an effect on the message being conveyed. Will you choose a pencil?

Pen? Phone? Email? Text? Picture? Or perhaps a face-to-face opportunity? Whatever you choose as your method of communicating with one person or a group of people guides how effectively you send your message.

- Communication may also include an emotions behind a message. You could just be sharing a picture of yourself on the beach or sending out a call for help on a class assignment, or perhaps feeling sad because a friend is sick. Each of these would affect how you might communicate.
- Additionally, there are other significant variables that play an important role in communicating, from ethnicity to culture to age to gender and are meaningful to what one is trying to “say” to someone else. Unfortunately, sometimes the message is lost or misconstrued because neither the sender nor the receiver has taken into account these important aspects of successful communication.



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One way we can improve our ability to communicate is to become an active listener and effective speaker which we will review in the next two sections.

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16.4 OPPORTUNITIES FOR EFFECTIVE SPEAKING



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Guidelines for effective speaking

- **Be honest, but don't be critical.** Strongly disagreeing may only put the other person on the defensive—an emotion sure to disrupt the hope for good communication. You can disagree, but be respectful to keep the conversation from becoming emotional. Say “I don't know, I think that maybe it's...” instead of “That's crazy! What's really going on is...”
- **Look for common ground.** Make sure that your side of a conversation relates to what the other person is saying and that it focuses on what you have in common. There's almost no better way to stop a conversation

dead in its tracks than to ignore everything the other person has just said and launch into an unrelated story or idea of your own.

- **Avoid sarcasm and irony unless you know the person well.** Sarcasm is easily misunderstood and may be interpreted as an attack on the other person's ideas or statements.
- **Don't try to talk like the other person,** especially if the person is from a different ethnic or cultural background or speaks with an accent or heavy slang. The other person will feel that you are imitating them and maybe even making fun of them. Be yourself and speak naturally.
- **While not imitating the other person, relate to their personality and style of thinking.** We do not speak to our parents or professors the exact same way we speak to our closest friends, nor should we speak to someone we've just met the same way. Show your respect for the other person by keeping the conversation on an appropriate level.
- **Remember that assertive communication is better than passive or aggressive communication.** Assertive in this context means you are honest and direct in stating your ideas and thoughts; you are confident and clear and willing to discuss your ideas while still respecting the thoughts and ideas of others.
- **A passive communicator** is reluctant to speak up, seems to agree with everything others say, hesitates to say anything that others might disagree with, and therefore seldom communicates much at all. Passive communication simply is not a real exchange in communication.
- **Aggressive communication,** at the other extreme, is often highly critical of the thoughts and ideas of others. This communication style may be sarcastic, emotional, and even insulting. Real communication is not occurring because others are not prompted to respond honestly and openly.
- **Choose your conversations wisely.** Recognize that you don't have to engage in all conversations. Make it your goal to form relationships and engage in interactions that help you learn and grow as a person. College life offers plenty of opportunities for making relationships and interacting with others if you keep open to them, so you needn't try to participate in every social situation around you.

16.5 OPPORTUNITY FOR ACTIVE LISTENING



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Guidelines for How to Become an Active Listener

- **Talk less to listen more.** Most people naturally like to share their thoughts and feelings, and some people almost seem unable to stop talking long enough to ever listen to another person. Try this: next time you're in a conversation with another student, deliberately try not to speak very much but give the other person a chance to speak fully. You may notice a big difference in how much you gain from the conversation.
- **Ask questions.** To keep the conversational ball rolling, show your interest in the other person by asking them about things they are saying. This helps the other person feel that you are interested in them and helps build the relationship.
- **Watch and respond to the other person's body language.** You'll learn much more about their feelings for what they're saying than if you listen only to their words.
- **Show the other person that you're really listening and that you care.** Make eye contact and respond

appropriately with nods and brief comments like “That’s interesting!” or “I know what you mean” or “Really?” Be friendly, smile when appropriate, and encourage the person to keep speaking.

- **Give the other person feedback.** Show you understand by saying things like “So you’re saying that…” or asking a question that demonstrates you’ve been following what they’re saying and want to know more. As you learn to improve your listening skills, think also about what you are saying yourself and how.

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16.6 ONLINE DISCUSSION FORUMS

Communicating in Online Discussion Boards

The tools we have at our fingertips for online communication are vast and varied. We learned earlier that communicating through professional email, from your FanshaweOnline email account is the preferred tool and there are certain rules for formal email. We also identified the key elements that need to be included in an email and saw how those elements help organize incoming mail, help prioritize response time and ultimately, help us make good use of our time.



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Every organization will have different acceptable communication tools and policies and being able to learn and apply the rules will make you an efficient communicator.

Many online courses include discussion boards and forums, either as a required assignment, or to support your learning process, so this section will focus on how you can use online discussion forums to support your learning in the best way possible.

Discussion forums are a tool for creating collaborative learning relationships. They can also be a low-stakes way to express your developing ideas, and to get feedback on the ways in which you are learning the course material as you work towards larger assignments.

What Makes a Good Forum Post?

The sample rubric below outlines what distinguishes stronger online posts from those that are less successful. Review the chart below. What do you notice? If your instructor has provided a rubric for online posts, read the rubric, and identify your instructor's criteria for success (Fenwick & Parsons, 2009).

LEVEL 3 (Most Successful)	LEVEL 2 (Successful)	LEVEL 1 (Unsuccessful)
<p>Posts reflect that you have completed and reflected well on the course readings.</p> <p>Posts demonstrate that you have read and reflected on colleagues' posts before posting a response.</p> <p>Posts contribute to the class' understanding of the course content.</p> <p>Posting is very regular and consistent throughout the whole course.</p> <p>Writing style is engaging, well organized, and professional.</p>	<p>Posts generally incorporate ideas from course readings.</p> <p>Posts usually show reflection on and response to others' ideas and questions.</p> <p>Posts are usually relevant to the current discussion.</p> <p>Posts usually help others to understand/discuss content.</p> <p>Posts are posted to the forum somewhat consistently.</p> <p>Writing quality is sufficiently clear and professional for easily understood by others.</p>	<p>Posts do not demonstrate an understanding of course readings.</p> <p>Posts fail to engage with other classmates' postings.</p> <p>Posts are not relevant to course learning outcomes.</p> <p>Posts do not help others learn.</p> <p>Posting is inconsistent throughout the course.</p> <p>Posts contain multiple writing errors or are poorly structured.</p>

Image Credit: Christina Page; Andrew Stracuzzi

Tips for Participating in Forums

1. **Develop a clear understanding of the expectations and ground rules for the forum.** Review your course presentation (syllabus) to guidance on how often to post, the type of content to include in each post, and the best way to respond to others' posts.
2. **Make connections between your posts and the content you are learning in the course.** A forum post is often an excellent place to engage in critical reflection. Make connections between the course content and the

ways that your growing understanding are shaping your present and future practice.

3. **Set a regular schedule for posting and commenting on forums.** This prevents the amount of content from becoming overwhelming, and allows you to develop stronger relationships in the course by regularly engaging with classmates.
4. **Include resources that might be useful to other classmates** or your instructor in your posts.
5. **Use language that is appropriate for an academic environment.** Avoid writing in a way that is too informal (i.e. writing that resembles a text message).
6. **Make sure that each post is clearly written and well structured.** Take time to clarify the message you want to communicate in your post, and organize your content into clear and concise paragraphs. This is easier for your reader than a long or disorganized post.
7. **Respond to others' posts in a supportive and challenging way.** In writing, messages may be unintentionally misinterpreted. Be sure that your responses to others are respectful, positive in tone, and do not appear angry, even when you wish to disagree or present an alternative viewpoint.
8. **Participate in the community discussion.** Read others' comments before posting, and connect your ideas with what you are hearing from your classmates (Pappas, 2015).

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16.7 TEAM AND GROUP WORK IN ACTION



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Working in groups is a necessary and important skill. We will find ourselves having to work in groups in various situations—at home, at work, at play, and at school. When we find ourselves working in groups—whether in a formal or informal situation—certain things tend to happen. Often the natural leaders will emerge to provide guidance and direction, and those who are natural followers will act accordingly. Conflicts will inevitably occur, as people have different visions for the outcome.

Working in groups in educational settings is a common occurrence. Instructors often require group work because it is such an important skill, particularly moving forward into the workplace. Working on labs together, group project work, group assignments, even online group work with classmates who are all over the world, are all standard situations. Getting along is important, but working effectively together can make a better project when each team member contributes according to their strengths, resulting in a better project than each could have done on their own.

Working in groups has advantages and disadvantages and works better in some situations than others. Here are some reasons why you might choose to work alone or in a group:

Working alone versus working in groups

Working Alone	Working in Groups
Free to make all the decisions	Can collaborate
Can use your own methods	Can share responsibility
Can be creative	Can share ideas and talents
Can do things on own time schedule	Can spread the workload
No disagreements	A more sociable way to work
No compromising – can do everything your way	Able to do something bigger and better
Can take all the credit	Can demonstrate ability to work in teams

Effective Working Groups

Groups that work effectively have the following characteristics:

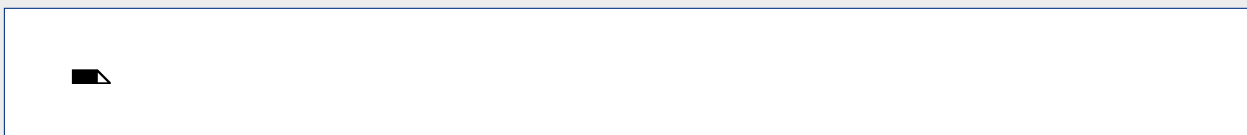
- Group members share a sense of purpose or common goals that each member is willing to work toward.
- The group that understands developing a climate of trust is important. In order to trust one another, individuals in a group must understand and get to know one another.
- The tasks or objectives are understood and accepted by everyone.
- There is free discussion leading to group commitment and no hidden agendas.
- The group is concerned not only performing well but learning and working through the process.
- The group periodically evaluates its performance.
- The group members use one another as a resource.
- Roles are balanced and shared to ensure that the tasks are accomplished and that group cohesion and morale are enhanced.
- The group comes up with clear assigned tasks for people in the group.
- Communication is clear, direct, open, and honest.
- Group members continually try to listen to and clarify what is being said, and show interest in what others say and feel.
- They feel freedom to build on each other's ideas. Differences of opinion are encouraged and freely expressed.
- The group focuses on problem solving rather than expending energy on competitive struggles or interpersonal issues.
- The group is willing to deal with conflict, and focus on it until it is resolved or managed in a way that does not reduce the effectiveness of the group and its members.
- Confrontation is accepted as a challenge to examine one's behaviour or ideas. It is not viewed as an uncaring personal attack.
- Mistakes are seen as sources of learning rather than reasons for punishment. This encourages creativity and risk taking.
- The group has a clear set of expectations and standards for the behaviour of group members.
- The group that understands developing a climate of trust is important. In order to trust one another, individuals in a group must understand and get to know one another.



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Effective, comfortable groups can accomplish a lot.

Video: How to Deal with Difficult Group Project Members





One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=511#oembed-1>

Video: “[How to Deal With Difficult Group Project Members](#)” by [SFU Beedie School of Business](#) [3:35] *Transcript Available.*

Managing Conflicts

When we hear the word conflict, we often think of it in a negative way. Conflicts sound like problems and problems are bad right? Think back to your attitude towards problems. Do you see them as something that will be a roadblock to your success, or as an opportunity to ask for help and learn something new? How you face problems will impact your ability to solve them.

Conflicts among people who are interacting are natural. People have many differences in opinions, ideas, emotions, and behaviours, and these differences sometimes cause conflicts. Successfully managing through conflict is a highly prized job skill and often requires you applying all of the [7 Job Skills for the Future](#) like novel and adaptive thinking, resilience as you work through the complex problems that may arise when you are working with others.

A conflict cannot be resolved satisfactorily unless all people involved have the right attitude and the right tools.



Photo by Alena Darmel, Pexels License

Conflict Resolution

- **Respect** the opinions and behaviours of others. Accept that people are not all alike. Most situations do not involve a single right or wrong answer.
- **Don't make assumptions.** Focus on the *behaviour* and NOT the person. For example, if Claudia doesn't respond to your email invite to a group meeting, avoid assuming she is not interested or is lazy. Reach out in another way, express concern. Perhaps she is overwhelmed right now with sick children and hasn't been able to review her email.
- **Be open minded.** Look at the other's point of view. Be open to change—even when that means accepting constructive criticism.
- **Take a Step Back.** You can't work together to resolve a conflict while you're still feeling strong emotions. Wait until you're able to communicate without strong emotions.
- **Recognize the value of compromise.** Even if you disagree after calmly talking over an issue, accept that as a human reality and understand that a compromise may be necessary in order to get along with others.

- **Using the right tools.** As we saw, we have the best chance of success to learn if we use multiple ways to communicate information. Conflict can arise if some people prefer to talk over tasks, while others will forget, and would benefit from written communication about what is required. In this way, they can review and reflect on it before being able to provide their thoughts.

Ghosting

In most cases, when the people involved have a good attitude and are open to compromise, conflicts can be resolved successfully.

Yet sometimes there seems to be no resolution. Sometimes the conflict can arise by group members refusing to engage in a group project, not answering emails or stops communicating with the group. This is often referred to as “ghosting” as the person has become invisible.

Review the requirements of any group work to ensure you understand the following:

- Is your group project for a group mark or are you marked individually, or both?
- Are you required to submit your individual work to the professor?
- What are the consequences of putting your name on a group project if you know some of it has been plagiarized or not original work or is missing citations and references?
- Have you set up group expectations for communicating, a timeline for the project and an list of consequences for not communicating?
- Can someone be removed from your group and if so, how do you communicate this with the professor and the group member?
- What do you do if someone shows up at the last minute and wants their name added to the project but they didn’t participate in the work?
- Is there a part of this assignment where you will be asked to evaluate your group members and is that information shared with them? Does your feedback impact their mark?



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This may mean engaging the help of your professor to better understand what the expectations are. Once again, communication is key to solving this challenge.

Stages in Group Formation

Groups that form to accomplish a certain goal go through stages in getting to that goal. It’s not a bad thing that conflict happens

along the way. In fact, it's almost inevitable. How people handle the conflict will determine whether or not the process is a positive and successful one.

Video: Forming, Storming, Norming, and Performing



One or more interactive elements has been excluded from this version of the text. You can view them online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=511#oembed-2>

Video: [Forming, Storming, Norming, and Performing: Bruce Tuckman's Team Stages Model Explained](#) by [MindToolsVideos](#) [1:58] *Transcript Available.*

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16.8 CONNECTING AND COMMUNICATING IN ACTION

Strong social connections, including feeling like you belong at Fanshawe, influence your academic success.

Like with many things, it is important to consider your purpose of any communication. These could include:

- To inform
- To persuade
- To educate
- To entertain
- To improve relationships

Recognize the Value of Social Interaction

Humans are social creatures—it’s simply in our nature. We continually interact with other students and professors, and we can learn a great deal from these interactions that heighten the learning process. This frequent interaction with others forms a state of interdependence. College students depend on their professors, but just as importantly, they depend on other students in many ways.

Building good relationships is important for happiness and a successful college experience. College offers the opportunity to meet many people you would likely not meet otherwise in life and allows you to further develop your social intelligence.



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Making New Friends

Some people just make friends naturally, but many first-year college students are more shy or quiet and may need to actively seek new friends. Here are some starting points:

- Try to sit with different people in classrooms and actively seek out people you don’t know for group work.
- Actively participate in online discussion boards to let people get to know more about who you are and what you think.
- Ask others about themselves. Show others that you’re interested in what they think by asking questions to further the conversation, whether online or in person.
- Study in a common area or lounge where you’ll be among others or go to open office hours with your professor to meet your classmates.



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- Be open in your interests. Don't limit yourself to people who share only certain interests. Meeting people by studying together is an excellent way to get to know people with different interests.

The college social experience also includes organized campus groups and activities. Participating in organized activities requires taking some initiative—you can't be passive and expect these opportunities to come knocking on your door—but is well worthwhile for fully enriching college interactions.

The active pursuit of a stimulating life on campus offers many benefits.

Organized groups and activities:

- Speed your transition into your new life. Rather than waiting for it to come along on its own, you can immediately begin broadening your social contacts and experiences by joining groups that share your interests.
- Help you experience a much greater variety of social life than you might otherwise. New students often tend to interact more with other students their own age and with similar backgrounds—this is just natural. But if you simply go with the flow and don't actively reach out, you are much less likely to meet and interact with others from the broader campus diversity.
- Help you gain new skills, whether technical, physical, intellectual, or social. Such skills may find their way into your résumé when you next seek a job or your application for a scholarship or other future educational opportunity. Employers and others like to see well-rounded students with a range of proficiencies and experiences.
- Are fun and a great way to stay healthy and relieve stress. Exercise and physical activity are essential for health and well-being, and many organized activities offer a good way to keep moving.



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How to Get Involved



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College campuses offer a wide range of clubs, organizations, and other activities open to all students. College administrators view this as a significant benefit and work to promote student involvement in such groups. It's a good time now to check out the possibilities:

- Browse the [Fanshawe Student Union Web site](#), where you're likely to find links to pages for student clubs, events and

organizations.

- Watch for club fairs, open houses, and similar activities on campus. Talk with the representatives from any group in which you may be interested.
- Look for notices on bulletin boards around campus. Student groups really do want new students to join, so they usually try to post information where you can find it.
- Consider other forms of involvement and roles beyond clubs. Gain leadership experience by running for office in student government or applying for a residence hall support position.
- If your campus doesn't have a group focused on a particular activity you enjoy yourself, think about starting a new club.

Take chances and explore. Attending a meeting or gathering is not a commitment—you're just going the first time to see what it's like, and you have no obligation to join. Keep an open mind as you meet and observe other students in the group, especially if you don't feel at first like you fit in: remember that part of the benefit of the experience is to meet others who are not necessarily just like everyone you already know.

Balancing Schoolwork and Social Life

If there's one thing true of virtually all college students, it's that you don't have enough time to do everything you want. Once you've developed friendships within the college community and have an active social life, you may feel you don't have enough time for your studies and other activities such as work.

For many students, the numerous social opportunities of college become a distraction, and with less attention to one's studies, academic performance can drop. Use the tips from the chapter on [Time Management](#) to help ensure you schedule your social time as well.



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16.9 CAREER CONNECTION

Career Connection

Interview Question

Tell me about a time when you were working as part of a team and one person was not doing their share. What was the situation? What did you do? How did it turn out?

Tell me about a time when you had to work with someone who had a very fixed mindset and was negative about the project you had to work on. What was the situation? What did you do? How did it turn out?

Discussion Boards/Forums – In-Class to Real World

Discussion boards are used in classrooms often. So how do they connect to real world use?

Customer service skills will include communicating in writing in online forums where customers post their feedback, questions, etc. Often, these are very public forums that others can see, so you need to be professional, ask the right questions and ensure the customer gets the information they need quickly

As part of the implementation process, software and hardware companies often give new clients access to a client discussion forum. Here, organizations can post questions of other businesses who are successfully using the new technology, trouble shoot any problems, build a network of likeminded colleagues and take advantage of a pool of talent to help with more complex problems, which may save time and money. The company can also communicate with all their clients at once and collect data about desired updates, any bugs that need fixing or even discover new ideas from their clients!

Within an organization, a discussion forum is a great way to keep employees up to date on new initiatives and collect feedback and provide clarification. This helps build a sense of trust and transparency when everyone within the business can ask questions and answers are available for everyone to read, reflect on and respond to.

Does my Personality Influence How I Communicate?

Business is about building relationships –with customers, vendors, investors, employees, industry regulators, the government etc. Each of these relationships is unique and therefore, the type and style of communication you use may need to be customized.

Not only is time wasted when communication is unclear, conflict can arise when communication is poor, which may damage a relationship. This can happen when we don't consider that how we like to send and receive messages may be very different from someone else.

We saw in [Chapter 7](#) and [Chapter 4](#) that reflecting on how we learn may help us develop good strategies for learning smarter. So is there value in looking at how our personality may impact how communicate with others?

Companies like Amazon, META, Google, Ford, Kraft, Oracle, Marriott, the United States Airforce have invested in personality assessments such as True Colours temperament and personality typing program to help their workforce “understand and recognize differences that can lead to miscommunication and conflict” (True Colours, n.d., para. 1).

These act as a starting point for good conversation and self-reflection. Not only does it help the individual think about their own communication style, but by extension, recognize that others may require a different approach.

Develop your social intelligence by going to [Chapter 4](#) and take a free version of the True Colours online assessment to determine how your personality may impact how you communicate with others. Note the percentage scores you receive for each of the four colours blue, gold, green, and orange and read the descriptions.

- Do you feel the results you got accurately describe your personality and communication style?
- How could you use this information to better communicate with someone who has a very different result than you do?
- Review your lowest score. How do you think you would respond to someone who was trying to communicate with you who had this as their highest score?

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16.10 FANSHAWE RESOURCES

Fanshawe College – Taking Responsibility for Improving Your Communication Skills

As a full-time student you have access to a full catalogue of LinkedIn Learning modules for free! These training modules vary in length and by completing a training course you are expanding your self-directed learning. Review the catalogue to find courses on business communication, conflict management, cross-cultural communication skills, and add the completion badges to your LinkedIn online profile to show employers you are invested in supporting a diverse workplace.

Connecting to Your Fanshawe Community



- [Fanshawe Student Union](#) – Information to connect with your Fanshawe Community through events, clubs, student government, on campus food information, ride shares, jobs, marketplace, volunteer opportunities, book a pool table or get tickets to events through the BIZ Booth.
- [Campus Recreation, Intramural Sports, E-Sports](#) – Join a team with friends or join one to meet new friends. Drop in opportunities in the gym, classes, simulator sign up, climbing wall or the full gym experience.
- [Events in the Library – Library News](#) – Movies, games and resources to help you connect for fun or study.
- [Practising Interview Skills](#) – Look for workshops on interviewing and ask about the online virtual interview tools or work one on one with a career services team member to practice your interview skills.

16.11 KNOWLEDGE CHECK

Summary

Communicating your thoughts and ideas so that others can understand them is a critical skill for success in college and the workplace.

- Choose the right communication tool for the type of communication required.
- Your professors and Fanshawe staff expect you to use your FOL email account regularly to send and review messages. Check your FOL email daily and use your email account for all formal communication.
- The communication process is complex and there are many variables that impact how the message is sent and received.
- Active listening improves the communication process and includes: asking questions, observing body language to see if it matches the words, making eye contact, nodding to show understanding and really listening for meaning, not just listening to respond.
- Communication is not always something active. Logos, signs, TV, social media are all communicating a message and we need to be aware of and critically examine these messages.
- Online discussion boards and forums, used in school and workplaces offer an asynchronous way to share ideas, ask questions for clarification and build relationships in a global setting with people you may never meet.
- Poor communication is a large contributor to conflict. Working with others will help you practice active listening, written, and spoken communication. Take time to reflect not only on how you communicate, but on how others do so that you can adapt to each others' styles.
- Benefits of practicing these skills include reduced conflict, less stress, better workplace opportunities, making new friends and connections among classmates, professors and employers.



Reflective Practice

Answer the reflection questions below in full sentences.



An interactive HSP element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=526#h5p-18>



Reflective Practice

Think of what context and what communication tool you would consider in the following situations:

1. You need to let your professor know you won't be able to hand in your assignment on time. What will you say, when and where will you say it, and what form of communication will you use and why?
2. Your roommate wants to have friends over for a party and you aren't sure you are up for that. What and how do you tell your roommate?
3. The weekend is full of activities, but you are expected home for a family gathering. How do you let your parents know you aren't coming?

Check the methods of communication you would most likely use for each of the following. Then write an explanation for why you have chosen the various forms of communication and how your choice had a link to the purpose of communicating with these different people.

	Face-to-Face	Email	Letter	Phone	Facebook	Instagram	Snapchat
Parent							
Peer							
Sibling							
Boss							
Doctor							
Professor							
Waitress							
Office assistant							
Significant other							

Take a close look at how you filled out the above chart. Do you find that there were definitely different purposes to how and why you used email instead of the phone, or Snapchat instead of a letter? It is good for you to reflect on your communication choices so that they are always most effective.

Look at the forms of communication you chose for "boss." Perhaps you chose face-to-face and email as the two forms of

communication you would use with your boss. Think through how those might have had an effect on the success of your communication with them. Now select two other forms of communication. Would you have been able to get the same response from your boss?



Reflective Practice

Read through your course presentations and find any guidelines for posting to forums. Create a checklist for yourself based on these guidelines and the rubric above. What do you need to do to create successful forum posts in *your course*? Keep this checklist, and refer to it regularly as you post to forums.

[Download a printable forum posting checklist](#)



Applying Your Knowledge



An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=526#h5p-16>



An interactive H5P element has been excluded from this version of the text. You can view it online here:

<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=526#h5p-17>

Glossary

Active Listening

Communication

Decoding

Encoding

Forming

Ghosting

Noise

Norming

Online Forum

Performing

Storming

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CHAPTER 17: EQUITY, DIVERSITY AND INCLUSION

Chapter Outline

[17.0 Introduction](#)

[17.1 What is Diversity?](#)

[17.2 Types of Diversity](#)

[17.3 The Benefits of Diversity](#)

[17.4 Embracing Diversity Thought Actions](#)

[17.5 Reflection](#)

[17.6 Career Connection](#)

[17.7 Fanshawe Resources](#)

[17.8 Knowledge Check](#)

17.0 INTRODUCTION

Learning Objectives

In this chapter you will learn about the benefits of your diverse learning environment at Fanshawe College and how our differences impact how we communicate and connect with one another.

By the end of this chapter you will be able to:

- Identify and explain what diversity means
- Evaluate and make informed decisions about your own beliefs
- Identify the benefits of diversity and how you can expand your global intelligence, through action
- Identify resources that can help you take responsibility for your own learning journey
- Recognize how academic success connects to career success

Successful students use their college experience to meet new people and gain understanding of others' viewpoints. Sometimes, we can have preformed ideas about people who are different than we are and may feel more comfortable with people who are "like" us. However, by starting with being open to getting to know people as individuals, we can break down many barriers and misconceptions. This can help you become a better global citizen as well as better understand the values of multiculturalism that we hold dear in Canadian society.



Multiculturalism involves an attitude of respect for the feelings, ideas, behaviours, and experiences of others who differ from oneself in any way.

Learning about different people can help us learn more about ourselves. We may have ideas about what is customary behaviour and we may have negative reactions when someone does something different. To prevent or resolve conflicts that may occur in any social interaction, you should:

- maintain an attitude of respect for others,
- develop your listening skills,
- be open minded and willing to compromise, and
- know how to work together calmly to resolve conflicts.

Communicating and conflict management will be explored in the next chapter.

Video: This is BELONGING



One or more interactive elements has been excluded from this version of the text. You can view them online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=3108#oembed-1>

Video: [This is BELONGING](#) by [Fanshawe College](#) [3:16] *transcript available.*

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17.1 WHAT IS DIVERSITY?



Getting Started

How do you feel about diversity, equity, and inclusion? These questions will help you determine how the chapter concepts relate to you right now. As you are introduced to new concepts and practices, it can be informative to reflect on how your understanding changes over time.

Your Own Beliefs Exercise

Review this article: [What is Your Diversity Quotient?](#) and discuss one question under the heading “Questions on Diversity of Exposure and Experience” and one from “Questions on Network Diversity” with a small group within your class. It might be helpful to have your professor assign your group to talk about and share with the class.

What Diversity Really Means

Diversity refers to the great variety of human characteristics, ways that we are different even as we are all human and share more similarities than differences.

Canada is a diverse country and that is represented in the Fanshawe College student population. But diversity means much more than a variety of racial and ethnic differences. These differences are an essential part of what enriches humanity.

Think back to where we investigated how we all learn differently. Our differences in attitude, motivation, learning preferences, and personalities make us all unique. By taking time to reflect on and be curious about how we are different, we can then explore the benefits of diversity for our society generally and for the college experience.

While we should all celebrate diversity, at the same time we need to acknowledge past issues that grew from misunderstandings of such differences and work together to bring change where needed. Sometimes these issues can be difficult to talk about and generate strong emotions.

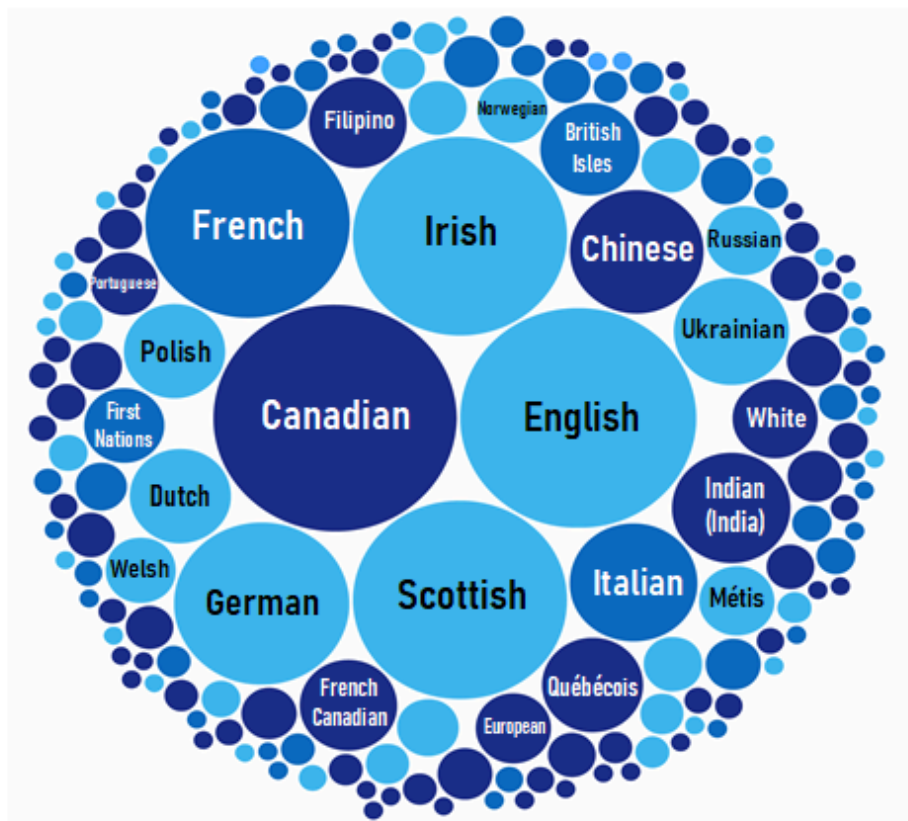
Differences among people may involve where a person was born and raised, the person’s family and cultural group, factual differences in personal identity, and chosen differences in significant beliefs. Some diversity is primarily cultural, other diversity may

be biological, and some diversity is defined in personal terms. Diversity generally involves things that may significantly affect some people’s perceptions of others, not just any way people happen to be different.

When discussing diversity, it is often difficult to avoid seeming to generalize about different types of people and such generalizations can seem similar to dangerous stereotypes. Individuals are different from other individuals in many possible ways and that we can all learn things from people whose ideas, beliefs, attitudes, values, backgrounds, experiences, and behaviours are different from our own.

Ethnicity or culture is only one way we are different.

Most common ethnic or cultural origins reported by the population, Canada, 2021



Proportion of single responses:



Note(s): The size of the bubble is in proportion to the number of total responses for a given ethnic or cultural origin. The colour of the bubble represents the proportion of single responses for a given ethnic or cultural origin grouped into tertiles.

Source(s): Census of Population, 2021 (3901).

Source: Statistics Canada, [Infographic: “Canadian” tops the more than 450 ethnic or cultural origins reported by the population of Canada, 2021](#). Reproduced and distributed on an “as is” basis with the permission of Statistics Canada.

Image Long Description

This bubble chart comprises the 168 ethnic or cultural origins reported most often by Canadians in the 2021 Census. As a percentage of total responses, the “Canadian” ethnic or cultural origin represents 15.6%; the “English” ethnic or cultural origin represents 14.7%; the “Irish” ethnic or cultural origin represents 12.1%; the “Scottish” ethnic or cultural origin represents 12.1%; the “French” ethnic or cultural origin represents 11.0%; the “German” ethnic or cultural origin represents 8.1%; the “Chinese” ethnic or cultural origin represents 4.7%; the “Italian” ethnic or cultural origin represents 4.3%; the “Indian (India)” ethnic or cultural origin represents 3.7%; the “Ukrainian” ethnic or cultural origin represents 3.5%; the “Québécois” ethnic or cultural origin represents 2.7%; the “Dutch” ethnic or cultural origin represents 2.7%; the “Polish” ethnic or cultural origin represents 2.7%; the “British Isles” ethnic or cultural origin represents 2.6%; the “Filipino” ethnic or cultural origin represents 2.5%; the “French Canadian” ethnic or cultural origin represents 2.5%; the “White” ethnic or cultural origin represents 1.9%; the “First Nations (North American Indian)” ethnic or cultural origin represents 1.7%; the “European” ethnic or cultural origin represents 1.5%; the “Métis” ethnic or cultural origin represents 1.5%; the “Russian” ethnic or cultural origin represents 1.5%; the “Norwegian” ethnic or cultural origin represents 1.3%; the “Welsh” ethnic or cultural origin represents 1.3%; the “Portuguese” ethnic or cultural origin represents 1.2%.

“[5.2 What is Diversity?](#)” & “[5.1 Self-Assessment](#)” from [Fanshawe SOAR](#) by Kristen Cavanagh is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](#), except where otherwise noted.

17.2 TYPES OF DIVERSITY



Joseph Pazzano: Director of Equity, Diversity and Inclusion outside in front of Pride flag. © Fanshawe College

Everyone learns differently and has different personalities. The following are other various aspects of diversity. These are just some of the types of diversity you are likely to encounter on college campuses and in our society generally.

Diversity of race. **Race** refers to what we generally think of as biological differences and is often defined by what some think of as skin colour. Such perceptions are often at least as much social as they are biological.

Diversity of ethnicity. Ethnicity is a cultural distinction that is different from race. An **ethnic group** is a group of people who share a common identity and a perceived cultural heritage that often involves shared ways of speaking and behaving, religion, traditions, and other traits. Race and ethnicity are sometimes interrelated but not

automatically so.

Diversity of cultural background. **Culture**, like ethnicity, refers to shared characteristics, language, beliefs, behaviours, and identity. We are all influenced by our culture to some extent.

Diversity of educational background. Colleges do not use a cookie-cutter approach to admit only students with identical academic skills. Diversity of educational background helps ensure a free flow of ideas and challenges those who might become set in their ways.

Diversity of geography. People from different places within Canada or the world often have a range of differences in ideas, attitudes, and behaviours.

Diversity of socioeconomic background. People's identities are influenced by how they grow up, and part of that background often involves socioeconomic factors. Socioeconomic diversity can contribute a wide variety of ideas and attitudes.

Diversity of gender roles. Women have virtually all professional and social roles, including those once dominated by men, and men have taken on many roles, such as raising a child, that were formerly occupied mostly by women. These changing roles have brought diverse new ideas and attitudes to college campuses.

Diversity of age. While younger students attending college immediately after high school are generally within the same age range, older students returning to school bring a diversity of age. Because they often have broader life experiences, many older students bring different ideas and attitudes to the campus.

Diversity of sexual orientation. People who are lesbian, gay, bisexual, transgendered, transsexual, and two spirited make up a significant percentage of people in Canadian society and students on college campuses. Exposure to this diversity helps others overcome stereotypes and become more accepting of human differences.

Diversity of religion. For many people, religion is not just a weekly practice but a larger spiritual force that infuses their lives. Religion helps shape different ways of thinking and behaving, and thus diversity of religion brings a wider benefit of diversity to college.



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Diversity of political views. A diversity of political views helps broaden the level of discourse on campuses concerning current events and the roles of government and leadership at all levels. College students are frequently concerned about issues such as environmentalism and civil rights and can help bring about change.



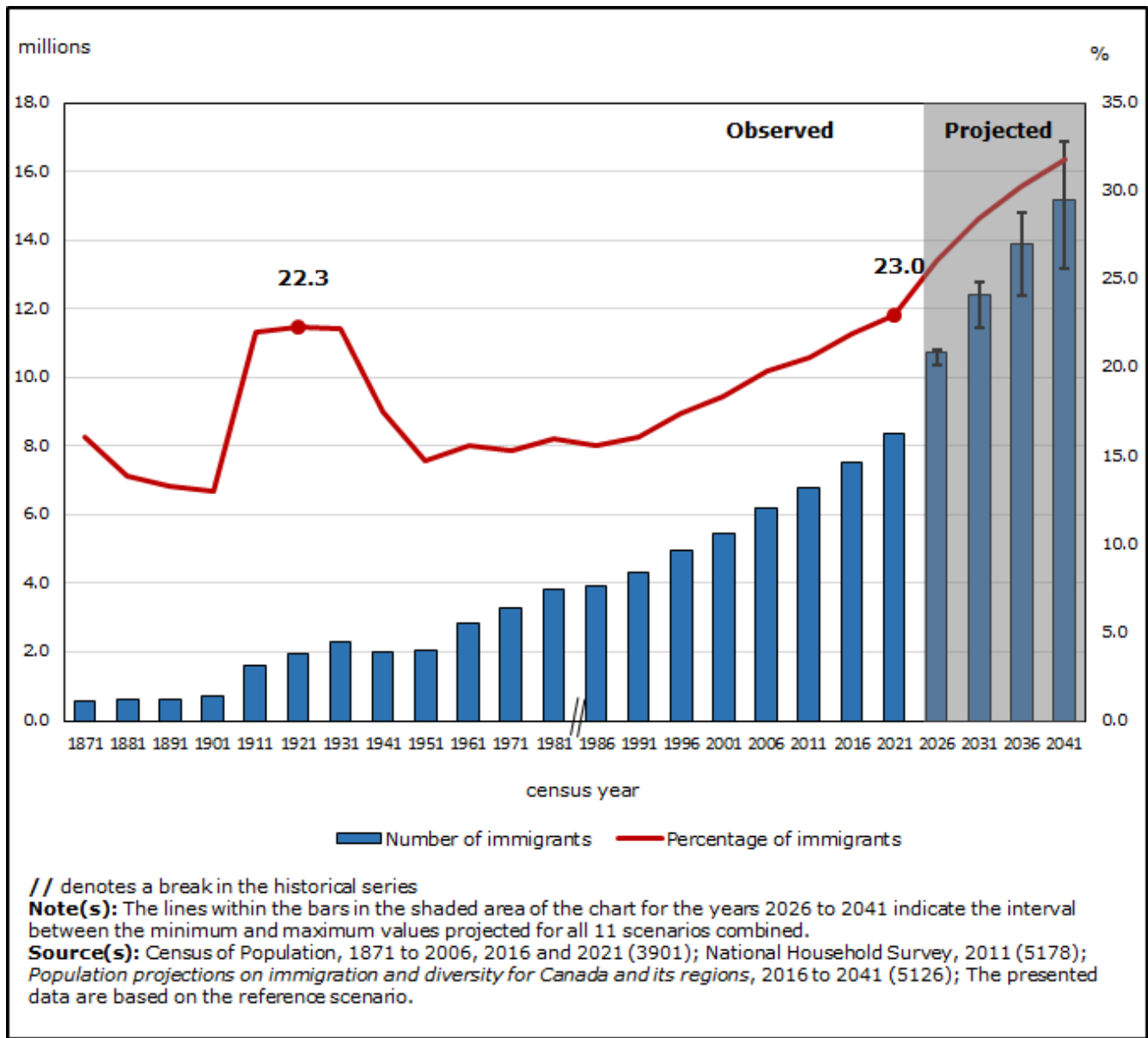
Fanshawe graduation ceremony. © [Fanshawe College](#)

proportion of the population in more than 150 years

Diversity of physical ability. Some students have athletic talents. Some students have physical disabilities. Physical differences among students brings yet another kind of diversity to colleges, a diversity that both widens opportunities for a college education and also helps all students better understand how people relate to the world in physical as well as intellectual ways.

Diversity of extracurricular abilities. Students participate in a wide variety of activities outside of class: clubs, activities, abilities in music and the arts, and so on. A student body with diverse interests and skills benefits all students by helping make the college experience full and enriching at all levels.

Nearly one in four people in Canada are immigrants, the highest



Source: Statistics Canada, [Infographic is “Nearly one in four people in Canada are immigrants, the highest proportion of the population in more than 150 years”](#), 2011. Reproduced and distributed on an “as is” basis with the permission of Statistics Canada.

Image Long Description

This is a combination bar and line chart showing the overall counts and proportion of the population of Canada who are immigrants, for each census since 1871. The left vertical axis shows the count of immigrants per period, in millions, from 0.0 million to 18.0 million, by increments of 2.0 million. The right vertical axis shows the proportion of the population of Canada that immigrants represent, in percent, from 0.0% to 35.0%, by increments of 5.

The horizontal axis shows the following census years: 1871, 1881, 1891, 1901, 1911, 1921, 1931, 1941, 1951, 1961, 1971, 1981, 1986, 1991, 1996, 2001, 2006, 2011, 2016, 2021, 2026, 2031, 2036, and 2041.

Each bar represents the count of immigrants on that census, with 594,207 in 1871; 602,984 in 1881; 643,871 in 1891; 699,500 in 1901; 1,586,961 in 1911; 1,955,736 in 1921; 2,307,525 in 1931; 2,018,847 in 1941; 2,059,911 in 1951; 2,844,263 in 1961;

3,295,530 in 1971; 3,843,335 in 1981; 3,908,150 in 1986; 4,342,890 in 1991; 4,971,070 in 1996; 5,448,480 in 2001; 6,186,950 in 2006; 6,775,770 in 2011; 7,540,830 in 2016; 8,361,505 in 2021; 10,712,000 in 2026; 12,408,000 in 2031; 13,891,000 in 2036; and 15,155,000 in 2041.

There is a shaded area within the chart representing the years when the proportion of the population that are immigrants is based on projected data (2026 to 2041).

The chart includes a horizontal line that shows the proportion of the population of Canada that immigrants represent, with 16.1% in 1871; 13.9% in 1881; 13.3% in 1891; 13.0% in 1901; 22.0% in 1911; 22.3% in 1921; 22.2% in 1931; 17.5% in 1941; 14.7% in 1951; 15.6% in 1961; 15.3% in 1971; 16.0% in 1981; 15.6% in 1986; 16.1% in 1991; 17.4% in 1996; 18.4% in 2001; 19.8% in 2006; 20.6% in 2011; 21.9% in 2016; 23.0% in 2021; 26.0% in 2026; 28.4% in 2031; 30.3% in 2036; and 31.8% in 2041.

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17.3 THE BENEFITS OF DIVERSITY

“In the face of complex global challenges, Canada will continue to champion diversity, acceptance and compassion on the world stage. We cannot build a better world unless we work together, respect our differences, protect the vulnerable, and put people at the heart of the decisions we make.”

– Rt. Hon. Justin Trudeau, Prime Minister of Canada (Government of Canada, 2022)



As you begin to explore how you are different than others in a respectful way, you begin to understand why you think and behave in certain ways based on your upbringing and past experiences and appreciate that this does not have to be the only way to approach life. Experiencing new ways of thinking, ideas, concepts and values leads to deeper and more novel and adaptive thinking and creative problem solving.



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Diversity on campus is beneficial for all students, not just those from ethnic or minority groups. The wider perspectives of students from different backgrounds and the greater variety of teaching methods help everyone gain more fully in educational experiences. Socially, students develop a more mature worldview and are better prepared for interacting with a diverse world in the future.

In addition, students who embrace opportunities to experience diversity have greater satisfaction with their college careers and take a personal responsibility both for broadening their own social world and for speaking out against prejudice and discrimination wherever encountered.

The goal of many college admissions departments is to attract diverse students from a broad range of backgrounds involving different cultural, socioeconomic, age, and other factors—everything in the preceding list. But why is diversity so important?

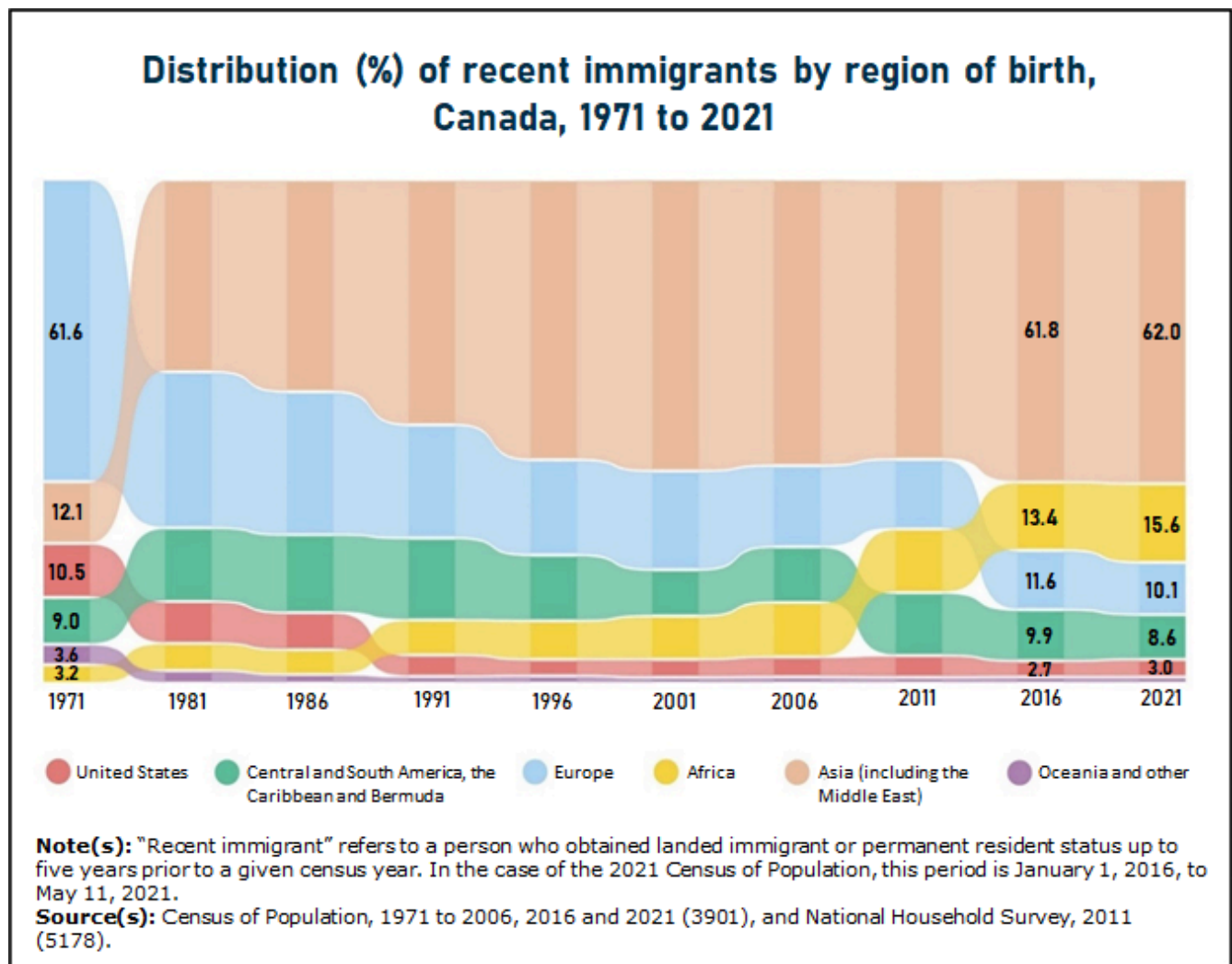
- Experiencing diversity at college prepares students for the diversity they will encounter the rest of their lives. Learning to understand and accept people different from ourselves is very important in our world.
- Students learn better in a diverse educational setting. Encountering new concepts, values, and behaviours leads to thinking in deeper, more complex, and more creative ways, rather than furthering past ideas and attitudes.
- Diversity experiences help break the patterns of segregation and prejudice that have characterized



North American history. Discrimination against others, whether by race, gender, age, sexual orientation, or anything else, is rooted in ignorance and sometimes fear of people who are different. Getting to know people who are different is the first step in accepting those differences.

- Experiencing diversity makes us all better citizens in our democracy. When people can better understand and consider the ideas and perspectives of others, they are better equipped to participate meaningfully in our society.
- Diversity enhances self-awareness. We gain insights into our own thought processes, life experiences, and values as we learn from people whose backgrounds and experiences are different from our own.

Note: Almost two-thirds of recent immigrants were born in Asia, including the Middle East (See Image Below).



Source: Statistics Canada, [Distribution \(%\) of recent immigrants by region of birth, Canada, 1971 to 2021](#), October 26, 2022, Reproduced and distributed on an "as is" basis with the permission of Statistics Canada.

Image Description

This is a ribbon chart that illustrates how the top regions of birth for recent immigrants have changed over the last 50 years (1971 to 2021). The regions are the United States; Central America, South America, the Caribbean and Bermuda; Europe; Africa; Asia (including the Middle East); and Oceania and others. The horizontal axis represents the following census years: 1971, 1981, 1986, 1991, 1996, 2001, 2006, 2011, 2016 and 2021. The left vertical axis details the proportion of recent immigrants in 1971 who were born in each source region. In 1971, 10.5% of recent immigrants were born in the United States; 9.0% were born in Central America, South America, the Caribbean and Bermuda; 61.6% were born in Europe; 3.2% were born in Africa; 12.1% were born in Asia (including the Middle East); and 3.6% were born in Oceania and others.

In 2016, 2.7% of recent immigrants were born in the United States; 9.9% were born in Central America, South America, the Caribbean and Bermuda; 11.6% were born in Europe; 13.4% were born in Africa; 61.8% were born in Asia (including the Middle East); and 0.7% were born in Oceania and others.

In 2021, 3.0% of recent immigrants were born in the United States; 8.6% were born in Central America, South America, the Caribbean and Bermuda; 10.1% were born in Europe; 15.6% were born in Africa; 62.0% were born in Asia (including the Middle East); and 0.7% were born in Oceania and others.

A Word About Multiculturalism

More than anything, multiculturalism is an attitude. Multiculturalism involves accepting and respecting the ideas, feelings, behaviours, and experiences of people different from oneself—all the forms of diversity described earlier. Canada is not actually a “melting pot” in the sense that people from diverse backgrounds somehow all become the same. Canada is often referred to as being a “mosaic” as it supports and preserves a great diversity of ideas, attitudes, and behaviours.

People of diverse religious backgrounds are not expected to “melt” together into one religion. Canada’s [Charter of Rights and Freedoms](#) guarantees the equal rights of all people regardless of skin colour, gender, age, and other differences—including, equality under the law for those with diverse sexual orientation.



An interactive HSP element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=3124#h5p-41>

“5.4 The Benefits of Diversity” from [Fanshawe SOAR](#) by Kristen Cavanagh is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](#), except where otherwise noted.

17.4 EMBRACING DIVERSITY THOUGHT ACTIONS

Diversity Thought Actions

- **Don't try to ignore differences among people.** Some people try so hard to avoid stereotyping that they go to the other extreme and try to avoid seeing any differences at all among people. But as we have seen throughout this module, people are different in many ways, and we should accept that if we are to experience the benefits of diversity.
- **Don't apply any group generalizations to individuals.** As an extension of not stereotyping any group, also don't think of any individual person in terms of group characteristics. People are individuals first, members of a group second, and any given generalization simply may not apply to an individual. Be open minded and treat everyone with respect as an individual with their own ideas, attitudes, and preferences.
- **Develop cultural sensitivity for communication.** Realize that your words may not mean quite the same thing in different cultural contexts or to individuals from different backgrounds. This is particularly true of slang words, which you should generally avoid until you are sure the other person will know what you mean.
- **Don't use slang** or expressions you think are common in the cultural group of the person you are speaking with. Similarly, since body language often varies among different cultures, avoid strong gestures and expressions until the responses of the other person signify he or she will not misinterpret the messages sent by your body language.
- **Educate yourself.** There are multiculturalism special events, cultural fairs and celebrations, concerts, and other programs held frequently on campus.



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Indigenous Learning Podcast – Fanshawe College 2019
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Activity



An interactive H5P element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=3128#h5p-42>

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17.5 REFLECTION



Reflective Practice



An interactive HSP element has been excluded from this version of the text. You can view it online here:
<https://ecampusontario.pressbooks.pub/prehealthpathways/?p=3130#h5p-44>

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17.6 CAREER CONNECTION

Career Connections

Interview Question

Tell me about a time when you were working as part of a team and one person was not doing their share. What was the situation? What did you do? How did it turn out?

Tell me about a time when you had to work with someone who had a very fixed mindset and was negative about the project you had to work on. What was the situation? What did you do? How did it turn out?

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17.7 FANSHAWE RESOURCES



Fanshawe College – Taking Responsibility for Your Learning

As a full-time student you have access to a full catalogue of [LinkedIn Learning](#) modules for free!

These training modules vary in length and by completing a training course you are expanding your self-directed learning. Review the catalogue to find courses on **equity, diversity, and inclusion** and add the completion badges to your LinkedIn online profile to show employers you are invested in supporting a diverse workplace.

Indigenous Acknowledgement and Land Recognition

Fanshawe College acknowledges and honour the Anishinaabe, Lotinuhsyuni, and Lenape people of southwestern Ontario as the traditional owners and custodians of the lands and waterways where Fanshawe College is located. Fanshawe celebrates the continuous living cultures of original inhabitants of Canada and acknowledges the important contributions Indigenous people have and continue to make in Canadian society. The College respects and acknowledges our Indigenous students, staff, Elders, and Indigenous visitors who come from many nations (Fanshawe College, n.d.-h).

You can learn more about the diverse histories, cultures and worldviews of Indigenous People in Canada through the [Maamwi Hub](#) developed by College Ontario Libraries or by reading about [Fanshawe's Institute of Indigenous Learning](#) (formerly known as the First Nations Centre) that opened its doors in 1996 with over 500 students registered.

EDI at Work at Fanshawe

Fanshawe has an Equity, Diversity, Inclusion, and Anti-Oppression Task Force.

Under the [leadership of Joseph Pazzano, Director of Equity, Diversity and Inclusion](#), the Task Force operates as an advisory body to the President and Executive Leadership Team.

In February of 2023, Fanshawe College announced it has been selected as a Colleges and Institutes Canada (CICan) 50 – 30 Challenge Hub. [The 50 – 30 Challenge](#) is an initiative between the Government of Canada, Canadian businesses, and diversity organizations, encouraging participants to increase representation of diverse groups within their workplaces. Fanshawe is one of four regional hubs located in colleges across the country (Fanshawe College, n.d., -i). The College plans to offer workshops, webinars, outreach events, and other educational initiatives to equip organizations with the knowledge and tools necessary to diversify their teams. These services will be available to all registered participants of the 50 – 30 Challenge (Fanshawe College, n.d., -i).

Rising Leaders program

The [Rising Leaders micro-certification program](#) is designed to introduce students to foundational areas of leadership, recognize their competencies in each area and identify areas and strategies for further skills development.

The program is comprised of 6 modules. Upon completing each module, students will be granted an electronic badge to post to social media.

Upon completion of all 6 modules, they will receive the Rising Leader Micro-credential certificate. The program is designed for students preparing for leadership roles in the college (FSU, peer mentorship, class reps, etc.) and is free to enroll in. Students will learn about new tools and approaches as well as how to apply the theories and practices to their overall career journey (Fanshawe College, n.d., -j).

Pride at Fanshawe

[Fanshawe College](#) embraces and supports members of 2SLGBTQIA+ community, values diverse sexual and gender identities and expressions that make up our community, and everybody is entitled to feel safe and respected on campus and have free and equal access to everything offered at Fanshawe (Fanshawe College, n.d.-k).

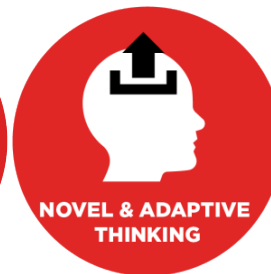
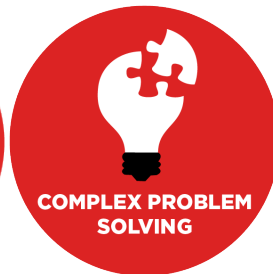
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17.8 KNOWLEDGE CHECK

Key Takeaways

Diversity can be thought of as differences, and we are all different in a variety of ways that goes beyond what we can see or what we can hear.

- Diversity generally involves things that may significantly affect some people's perceptions of others, not just any way people happen to be different.
- Canada takes pride in its multi-culture nature and continues to promote immigration as the way to strengthen the economy and promote a culture of understanding and tolerance.
- There is value in taking time to understand why you think and behave in certain ways based on your upbringing and past experiences helps you understand that there are a variety of ways to approach life.
- Experiencing new ways of thinking, ideas, concepts, and values leads to development of global citizenship, social intelligence, novel and adaptive thinking, and creative problem solving, all skills identified as critical for job success.



- Diversity on campus is beneficial for all students and you may need to step out of your comfort zone to actively expand your worldview by seeking out new opportunities. Socially, students develop a more mature worldview and are better prepared for interacting with a diverse world in the future.
- The wider perspectives of students from different backgrounds and the greater variety of teaching methods help everyone gain more fully in educational experiences.
- In addition, students who **embrace opportunities** to experience diversity have greater satisfaction with their

college careers and take a personal responsibility both for broadening their own social world and for speaking out against prejudice and discrimination wherever encountered.

Glossary

Culture

Diversity

Ethnic group

Multiculturalism

Race

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GLOSSARY

Academic Advisor

A person who supports your journey through the Fanshawe College system.

They are the experts when it comes to providing advice on dropping a course, your schedule, changing programs, how to communicate with your professors and can connect you with people to help you with your job search, questions about international visa, work permits, parking, security etc.

Academic Integrity

Holding oneself and others accountable for performing academic work both honestly and ethically.

Active Listening

Thinking while listening to support one's listening efforts and to help you stay focused, let you to test your understanding and help you remember the material.

Active reading

A planned, deliberate set of strategies to engage with text-based materials with the purpose of increasing your understanding.

Analytical Thinking

Working through a problem by breaking it down into its component parts for separate analysis.

APA Format

A referencing format created by the American Psychological Association.

Asynchronous Delivery

Participants access the presentation at different times.

Aural Learning Preference

A learning preference in which an individual learns better by listening. Part of the VARK approach to learning preferences.

Backchannels

Secondary or additional means of interacting with your audience.

Blended Learning

Refers to a course structure in which students will spend some hours in a classroom with a professor and classmates, but are also expected to take part in online activities outside of class time.

Budget

A specific financial plan for a specified time.

Cheating

Taking information or knowledge from someone else and presenting it as one's own work. Can take the form of looking over someone's shoulder during an exam, or any forbidden sharing of information between students regarding an exam or exercise.

Citing

Refers to telling readers where the information in your work originated.

Co-curricular

Refers to material taught in one class will provide a basis for knowledge in other classes in the same term, as well as the base knowledge required for the second term. May also refer to activities, programs, and learning experiences that complement, in some way, what students are learning in school—i.e., experiences that are connected to or mirror the academic curriculum.

Communication

Exchanging of information.

Complex Problem Solving

The skill of applying a method to a problem, often not seen before, to obtain a satisfactory solution.

Compounding Interest

Interest calculated on the principle and the previous accumulated interest.

Concept Map

A visual way of representing information where you place a central idea in the centre of the page and then add lines and new circles in the page for new ideas. Use arrows and lines to connect the various ideas.

Contingency Planning

Identifying potential problems and creating a back up.

Cornell Method

A two-column approach. The left column takes up no more than a third of the page and is often referred to as the “cue” or “recall” column. The right column (about two-thirds of the page) is used for taking notes using any of the methods described above or a combination of them.

Course Learning Objectives (CLOs)

Objectives that will be achieved by the end of the course and will relate back to the Vocational Learning Outcomes at varying levels in a program.

CR SIGNS

An acronym that stands for complex problem solving, resilience, social intelligence, implementation, global citizenship, novel and adaptive thinking and self-directed learning.

Creative Thinking

Seeking out new ways to solve problems or identify a need.

Credibility

The quality of being trusted.

Credit Card

A card allowing for the purchase of goods and services on credit.

Credit Score

A rating that represents the ability of a person to fulfill their financial commitments based on their credit history.

Crisis Management

Management technique in which the immediate problem is given top priority and, after resolving the immediate problem, reflecting on what happened to develop a strategy that will help avoid the same problem in the future.

Critical Thinking

Includes some form of judgment that thinkers generate after carefully analyzing the perspectives, opinions, or experimental results present for a particular problem or situation.

Culture

Like ethnicity, refers to shared characteristics, language, beliefs, behaviours, and identity. We are all influenced by our culture to some extent.

Daily Top Three Approach

A method where you determine which three things are the most important to finish that day, and these become the tasks that you complete.

Debt

Money which is owed.

Deception

Providing false information to an instructor concerning an academic assignment.

Decoding

Understanding the language of a message and interpreting its meaning.

Descriptive Research

A study that defines something by describing its characteristics, behaviours, or actions.

Discourse

A conversation over time about a topic.

Diversity

The great variety of human characteristics, ways that we are different even as we are all human and share more similarities than differences.

Eat the Frog

A time management approach where a person takes care of the biggest or most unpleasant task first, so that everything else will be easier after that.

Eisenhower Matrix

A method of organizing priorities to ensure that you focus on the correct tasks.

Encoding

How we first perceive information through our senses - sight, hearing, taste, touch and smell.

Essay questions

Used by professors to evaluate your thinking and reasoning applied to the material covered in a course. Good essay answers are based on your thoughts, supported by examples from classes, and reading assignments.

Ethnic group

A group of people who share a common identity and a perceived cultural heritage that often involves shared ways of speaking and behaving, religion, traditions, and other traits.

Exploratory Research

Answers the question “Does something exist?”

Extrovert

The extrovert is primarily motivated by the outside world and social interaction.

Fabrication

The falsification of data, information, or citations in an academic assignment.

FAST

A way to develop your message according to the elements of format, audience, style, and tone.

Feeling Person

A person who responds based on their feelings and empathy.

Feeling Trait

A trait of a learner who focuses on the emotional side of information and learns through personal connections and empathy.

Fixed Expenses

Expenses that cost about the same every month and are predictable based on your arrangement with the provider.

Fixed Mindset

The belief that abilities cannot be changed through learning.

Formatting Features

Elements such as bolding, indenting, bullets, different font sizes, styles, and colours, underlining, italicizing, shading, inserting captions, and highlighting, to make your documents visually appealing and clearer to read.

Forming

The first stage of group development with a polite atmosphere.

Foundational Skills

Basic skills such as goal setting, planning and organizing, self – leadership, and critical thinking, that form the basis for learning. Also called soft skills.

Gesture

“A movement that you make with your hands, your head or your face to show a particular meaning” (Oxford Learners Dictionaries, n.d.)

Ghosting

When a group member is refusing to engage in a group project, not answering emails or stops communicating with the group.

Global citizenship

Having a worldview grounded in civic responsibility and ethics.

Gross Pay

The pay found on your pay stub or statement.

Growth Mindset

The belief that abilities could change through learning.

Hidden Curriculum

A phrase used to cover a wide variety of circumstances at school that can influence learning and affect your experience. Sometimes called the invisible curriculum, it varies by institution and can be thought of as a set of unwritten rules or expectations.

Implementation skills

The ability to design, manage, and execute projects, initiatives or plans in an organized, timely fashion. Often referred to as having a “get 'er done” attitude.

Imply

Hint at information without directly stating a fact for a variety of reasons.

Infer

To conclude responses to related challenges from evidence or from your own reasoning.

Interpretation

The task of drawing inferences from the facts that you collect in your research.

Introvert

A person more motivated by things that are internal to them—things like their own interests.

Intuitive Trait

A trait of a learner who perceives things in broader categories and is often described as having a hunch or a gut feeling.

Investments

An asset invested in to build wealth and save money.

Job Skills for the Future

Skills required for those seeking to build successful careers.

Judging Trait

A trait of a learner who approaches things in a structured way—usually using Sensing and Thinking traits

Kinesthetic

Learn best by doing.

Learning Goals

Refers to what a learners hopes to get out of learning.

List Method

A method of notetaking in which you taking down ideas as they are presented without sorting or organizing the ideas. May not be the best choice of notetaking because it is focused exclusively on capturing as much of what the professor says as possible, not on processing the information.

Long-term Memory

Where the brain stores information in case we need to use it in the future.

Memorization

A form of learning that does not always require deeper understanding.

Memory

The process of storing and retrieving information

Metacognition

Thinking about thinking.

Multiculturalism

Involves an attitude of respect for the feelings, ideas, behaviours, and experiences of others who differ from oneself in any way.

Myers Briggs

A questionnaire to indicate different psychological preferences in how people perceive the world and make decisions.

Net Pay

The smaller amount of your pay after money is deducted for a variety of taxes, etc.

Noise

Refers to anything that gets in the way of the message getting through. It could be actual noise interference (like a loud argument in the hallway) but it could also be the speaker mumbling, the receiver being stressed out and thinking about something else, or anything else that prevents the clear transmission of the message or ability to decode it.

Non-verbal Cues

Elements like gestures, facial expressions, and posture.

Norming

The third stage of group development where differences are resolved.

Novel and Adaptive Thinker

Being creative in analysis and solutions.

Online Forum

An online space for discussion.

Online Learning

Refers to a course structure in which students interact with the material, their instructor, and other students remotely via the Internet.

Online Tests

Tests that are written via computer/Internet. Usually delivered through your learning management system (FOL at Fanshawe) and require some additional planning to manage the technical aspects.

Open Book Tests

Tests in which a textbook and/or other materials are permitted for reference during the test. Professors often give this type of test when they are more interested in seeing your thoughts and critical thinking than your memory power.

Outline Method

A method of notetaking in which you place most important ideas along the left margin, numbered with roman numerals. Supporting ideas to these main concepts are indented and are noted with capital letters and under each of these ideas, further detail can be added.

Paper Tests

A very common type of test, requiring students to write answers on the test pages or in a separate test booklet or bubble sheet.

Perceiving Trait

A trait of a learner who often thinks of structure as somewhat inhibiting. They tend to make more use of Intuition and Feeling in their approach to life.

Performance Goals

Refers to the way a student wants to appear to other students. For example, their primary psychological concern might be to appear intelligent to others.

Performing

The fourth stage of group development where the team is confident in their role and work.

Plagiarism

Defined in the 1995 Random House Compact Unabridged Dictionary, is the "use or close imitation of the language and thoughts of another author and the representation of them as one's own original work" (Emory University, 2022, para. 4)

Pomodoro Technique

A method where you use a timer to set work intervals that are followed by a short break.

Popular Knowledge Products

Knowledge products that communicate a broad range of information. The author is often not identified, sources are often not documented, and language is not technical. Because they are commercial products packaged for wide sales, they often use colour and have numerous ads.

Pre-Health Sciences Pathway to Advanced Diplomas and Degrees (PHS or Pre-Health Science)

Program that provides students with the opportunity to study subject areas relevant to health career programs at Fanshawe College and to instill an appreciation of the professional roles, responsibilities and academic requirements of health care disciplines.

Prediction Research

Involves identifying relationships that make it possible for us to speculate about one thing by knowing about something else.

Primary Sources

Original documents about which we write and study, such as letters between historic figures or the Declaration of Independence

Prioritization

Ordering tasks and allotting time for them based on their identified needs or value.

Problem Solving

The act of solving a problem which includes identifying the issues, strategizing, and selecting and implementing a solution.

Procrastination

The act of delaying some task that needs to be completed.

Professional Integrity

Refers to holding one's self and others accountable for performing 'professional' work, both honestly and ethically, in the workplace in the industry of your choice.

Professional Knowledge Products

Knowledge products that are written for professionals in a field; the author is most often identified, sources are not always documented, and the language may or may not be technical.

Program Advisory Committee (PAC)

A committee largely consisting of faculty from health career program and other science programs, together with representation from local high schools.

Race

What we generally think of as biological differences; often defined by what some think of as skin colour. Such perceptions are often at least as much social as they are biological.

Read/Write Learning Preference

A learning preference in which an individual learns better by reviewing, reading (and writing). Part of the VARK approach to learning preferences.

Recall

Refers to being able to retrieve an image, feeling, or information so we can do something with it. This is what we call remembering.

Recursive Reading

Reading the passage more than once to detect the emphasis the writer places on one aspect of the topic or how frequently the writer dismisses a significant counterargument.

Referencing

A formal system of indicating where ideas and information originated to properly credit the author and show how your argument relates to the big picture.

Resilience

The ability to thrive while overcoming obstacles.

Savings

Money which is not being spent or invested.

Scholarly Knowledge Products

Knowledge products that are written for scholars in a particular field.

Self-directed learner

Being autonomous, organized, and self-disciplined.

Self-Directed Learning

Apply independent learning strategies.

Sensing Trait

A trait of a learner who often looks to direct observation as a means of perception and prefers to arrive at a conclusion by examining details and facts.

Short Answer Questions

Questions which require the student to write a short response, typically in the form of individual sentences or a small paragraph. They are designed for you to recall and provide some very specific information.

Short-Term Memory

Made up of the information we are processing at any given time. Also called Active Memory

Skimming

A first step to deep reading which allows you to take in the major points of a passage without the need for a time-consuming reading session that involves your active use of notations and annotations.

Slide Decks

The most common visual aid used in presentations and may be developed using software such as PowerPoint, Keynote, Prezi, or Google Slides. These tools allow you to show text, images, and charts and even to play audio or video files.

Social Intelligence

Being able to interact positively with others, building strong healthy relationships, and thriving in social environments.

Soft Skills

Essential traits looked for by employers such as interpersonal skills, communication skills, time-management, problem-solving, empathy, etc.

Storming

The second stage of group development with conflicts and frustration at progress.

Stress

A natural response of the body and mind to a demand or challenge.

Stressor

The thing that causes stress and captures our attention and causes a physical and emotional reaction.

Synonym

A word or phrase that has nearly the same meaning as another word or phrase.

Take Home Tests

Tests that students are permitted to take home to complete and submit at a later date. They are like open-book tests except you have the luxury of time on your side. The professor will likely expect more detail and more complete work because you are not under a strict time limit and because you have access to reference materials.

Teacher-Directed Classrooms

In these classrooms, the teacher is the central figure, and the students take direction about what to learn directly from the instructor.

Technical Skills

The types of skills you may see listed on a job posting and might include, understanding the biology, physiology and chemistry of the human body, using health-sciences and other health-related terminology, good communication skills, or good time management.

Test Anxiety

A psychological condition in which a person feels distress before, during, or after a test or exam to the point where stress causes poor performance.

Thesaurus

A resource that provides synonyms and related concepts.

Thinking Trait

A trait of a learner who arrives at opinions based on reason and logic.

Validity

The quality of being logically or factually sound.

Variable Expenses

Expenses that change based on your priorities and available funds.

VARK

A popular approach to learning styles that focuses on learning through different senses: Visual, Aural, Reading/Writing, and Kinesthetic.

Video Tests

Tests where students may be asked to respond to written prompts and record their answer in video format.

Visual Aids

Includes handouts, drawings on the whiteboard, PowerPoint slides, memes, short video clips, and many other types of props.

Visual Learning Preference

A learning preference in which an individual learns best by seeing pictures, graphs, charts.

Vocational Learning Outcomes (VLOs)

Outcomes that describe the learning being done at the program level and follow the credentialing framework outlined by the ministry.

Working Memory

A type of short-term memory, but we use it when we are actively performing a task.

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ANCILLARY RESOURCES

Instructor Slide Decks

- [Pre-Health Science Pathways to Success – Chapter 1](#)
- [Pre-Health Science Pathways to Success – Chapter 2](#)
- [Pre-Health Science Pathways to Success – Chapter 3](#)
- [Pre-Health Science Pathways to Success – Chapter 4](#)
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VERSIONING HISTORY

This page provides a record of edits and changes made to this book since its initial publication. Whenever edits or updates are made in the text, we provide a record and description of those changes here. If the change is minor, the version number increases by 0.1. If the edits involve a number of changes, the version number increases to the next full number.

The files posted alongside this book always reflect the most recent version.

Version	Date	Change
1.0	August 30, 2023	First Publication