

ACP 511, Emergency Diagnosis and Treatment (ED&T)

6 credits, average two 3-hour classes per week

Course Description

This course deals with the field diagnosis and treatment of prehospital emergencies at the paramedic level. Diagnosis is made through a combination of physical exams, systems, patient histories, and diagnostic tests carried out in the field. Students will apply different diagnosis techniques to life threatening conditions that can be mitigated in the field. Focus will be on differentiating life-threatening conditions from conditions that should be managed in the hospital.

Pre-requisites: ACP 501, ACP 502, ACP 503, ACP 505, ACP 507, ACP 508, ACP 509, ACP 510, ACP 516, ACP 517, and ACP 518

Co-requisites: ACP 504, ACP 513, and ACP 514

Instructors

Manpreet Uppal ACP

Office: BL255

Emails:

Email: Manpreet.uppal@keyano.ca

Office Hours

0800 - 1700

Hours of Instruction

90

Required Textbook

National Association of Emergency Medical Technicians (2021). *Advanced medical life support : an assessment-based approach* (3rd ed.). Jones & Bartlett learning.

Campbell, J. E., American College of Emergency Physicians (2019). *International trauma life support: ITLS* (9th ed.). Upper Saddle River, N.J: Pearson/Prentice Hall.

Additional Resources

Caroline, N. (2021). *Nancy Caroline's emergency care in the streets* (8th ed.). Jones & Bartlett Learning.

Field, J. M., Gonzales, L., Hazinski, M. F., Ruple, J. A., & American Heart Association. (2020). *Advanced cardiovascular life support provider manual: ACLS*. Dallas, TX: American Heart Association.

McCance, K. L., & Huether, S. E. (2019). *Pathophysiology: The biologic basis for disease in adults and children* (8th ed.). Maryland Heights, Mo: Mosby Elsevier.

Rosenthal, L.D. & Burchum, J.R. (2022). *Lehne's Pharmacology for Nursing Care* (11th ed.). Elsevier.

*Other resources will be provided in Moodle.

Course Outcomes

Upon successful completion of the course, the ACP student will integrate and apply all prior and concurrent learning from the ACP program to refine critical thinking and praxis. NOCP competencies found in Appendix 4 (pathophysiology) and Appendix 5 (pharmacology) will be reviewed. The focus of this course will be built from ITLS and AMLS concepts to enable the ACP student to:

Assessment

- Discuss and demonstrate a systematic approach to medical and trauma patients, including scene size-up, initial assessment, focused history, physical exam (focused and detailed), interventions, and ongoing assessments.
- NOCP Competency (CCP) applied:
 - 1.1.b Reflect professionalism through use of appropriate language
 - 1.1.j Function as patient advocate
 - 1.2.b Self-evaluate and set goals for improvement, as related to professional practice.
 - 1.2.c Interpret evidence in medical literature and assess relevance to practice.
 - 1.3.a Comply with scope of practice and identify variances in protocols / standing orders / advanced directives.
 - 1.3.b Recognize the rights of the patient and the implications on the role of the provider.
 - 1.5.a Work collaboratively with a partner.
 - 1.5.b Accept and deliver constructive feedback.
 - 1.6.a Employ reasonable and prudent judgment (throughout ACP 511)
 - 1.6.b Practice effective problem-solving (throughout ACP 511).
 - 1.6.c Delegate tasks appropriately (throughout ACP 511)
 - 2.1.b Deliver an organized, accurate and relevant verbal report
 - 2.1.c Deliver an organized, accurate and relevant patient history.
 - 2.1.d Provide information to patient about their situation and how they will be cared for.
 - 3.3.a Assess scene for safety.
 - 3.3.b Address potential occupational hazards.
 - 3.3.f Practice infection control techniques.

 - 4.2.a Obtain list of patient's allergies.
 - 4.2.b Obtain patient's medication profile.
 - 4.2.c Obtain chief complaint and / or incident history from patient, family members and / or bystanders.
 - 4.2.d Obtain information regarding patient's past medical history.
 - 4.2.e Obtain information about patient's last oral intake.

- 4.2.f Obtain information regarding incident through accurate and complete scene assessment.
- 4.3.a Conduct Primary patient assessment and interpret findings.
- 4.3.b Conduct secondary patient assessment and interpret findings.
- 4.3.o Conduct geriatric assessment and interpret findings.
- 4.3.p Conduct bariatric assessment and interpret findings.
- 4.4.a Assess pulse.
- 4.4.b Assess respiration.
- 4.4.c Conduct non-invasive temperature monitoring.
- 4.4.d Measure blood pressure by auscultation.
- 4.4.e Measure blood pressure by palpation.
- 4.4.f Measure blood pressure with noninvasive blood pressure monitor.
- 4.4.g Assess skin condition.
- 4.4.h Assess pupils.
- 4.4.i Assess level of consciousness.
- 4.5.a Conduct oximetry testing and interpret findings.
- 4.5.b Conduct end-tidal carbon dioxide monitoring and interpret findings.
- 4.5.c Conduct glucometric testing and interpret findings.
- 4.5.d Conduct peripheral venipuncture.
- 4.5.l Interpret laboratory data as specified in Appendix 5.
- 4.5.m Conduct 3-lead electrocardiogram (ECG) and interpret findings.
- 4.5.n Obtain 12-lead electrocardiogram and interpret findings.
- 4.5.o Interpret radiological data.
- 4.5.p Interpret data from CT, ultrasound and MRI.
- 5.8.a Recognize principles of pharmacology as applied to medications listed in Appendix 5.
- 5.8.b Follow safe process for responsible medication administration.
- 5.8.c Administer medication via subcutaneous route.
- 5.8.d Administer medication via intramuscular route.
- 5.8.e Administer medication via intravenous route.
- 5.8.f Administer medication via intraosseous route.
- 5.8.g Administer medication via endotracheal route.
- 5.8.h Administer medication via sublingual route.
- 5.8.j Administer medication via topical route.
- 5.8.k Administer medication via oral route.
- 5.8.m Administer medication via inhalation.
- 5.8.n Administer medication via intranasal route.
- 5.8.o Provide patient assist according to provincial list of medications.
- 6.1.l Provide care to patient experiencing non-urgent problem.
- 6.1.m Provide care to a palliative patient.
- 6.1.o Provide care to trauma patient.
- 6.2c Provide care for geriatric patient.
- 6.2d Provide care for the physically impaired patient.
- 6.2f Provide care to bariatric patient.
- 6.3.a Conduct ongoing assessments based on patient presentation and interpret findings.
- 6.3.b Re-direct priorities based on assessment findings.

Respiratory

- Incorporate the anatomy, physiology, and pathophysiology of the respiratory system and mechanisms of ventilation.
- Differentiate between respiratory distress and failure.
- Determine the most likely diagnosis, potential conditions requiring emergent treatment, and devise and accurate/appropriate treatment plan.

- Discuss and demonstrate the management of patients with respiratory disorders from a medical and trauma perspective.
- Outline and interpret diagnostic tests commonly used to assist with working diagnosis.
- NOCP
 - 4.3.e Conduct respiratory system assessment and interpret findings.
 - 5.1.a Use manual maneuvers and positioning to maintain airway patency.
 - 5.1.b Suction oropharynx.
 - 5.1.c Suction beyond oropharynx.
 - 5.1.d Utilize oropharyngeal airway.
 - 5.1.e Utilize nasopharyngeal airway.
 - 5.1.f Utilize airway devices not requiring visualization of vocal cords and not introduced endotracheally.
 - 5.1.g Utilize airway devices not requiring visualization of vocal cords and introduced endotracheally.
 - 5.1.h Utilize airway devices requiring visualization of vocal cords and introduced endotracheally.
 - 5.1.i Remove airway foreign bodies (AFB).
 - 5.1.j Remove foreign body by direct techniques.
 - 5.1.k Conduct percutaneous cricothyroidotomy.
 - 5.1.l Conduct surgical cricothyroidotomy.
 - 5.3.a Administer oxygen using nasal cannula.
 - 5.3.d Administer oxygen using high concentration mask.
 - 5.4.a Provide oxygenation and ventilation using manual positive pressure devices.
 - 5.4.b Recognize indications for mechanical ventilation.
 - 5.5.s Conduct needle thoracostomy.
 - 6.1.c Provide care to patient experiencing signs and symptoms involving respiratory system.
 - 6.1.j Provide care to patient experiencing signs and symptoms involving the eyes, ears, nose or throat.

CVS and Shock

- Apply knowledge of anatomy, physiology, and pathophysiology to patients presenting with chest discomfort.
- Describe and demonstrate the general assessment and management for a patient presenting with chest discomfort.
- Describe the ongoing assessment of the patient presenting with chest discomfort, utilized to rule out or confirm potential diagnoses and adapt treatment and management based on patient response and findings.
- Determine the most likely diagnosis, potential conditions requiring emergent treatment, and devise and accurate/appropriate treatment plan for the medical and trauma patient.
- Recognize and differentiate between the types of shock.
- Recognize and differentiate between the stages of shock.
- Determine the most likely diagnosis, potential conditions requiring emergent treatment, and devise and accurate/appropriate treatment plan for the medical and trauma patient.
- Utilize the AMLS pathway to assess a patient in shock and identify potential diagnoses and management.
- Outline and interpret diagnostic tests commonly used to assist with working diagnosis.
- NOCP
 - 4.3.c Conduct cardiovascular system assessment and interpret findings.
 - 5.5.a Conduct cardiopulmonary resuscitation (CPR).
 - 5.5.b Control external hemorrhage through the use of direct pressure and patient positioning.
 - 5.5.c Maintain peripheral intravenous (IV) access devices and infusions of crystalloid solutions without additives.
 - 5.5.d Conduct peripheral intravenous cannulation.

- 5.5.e Conduct intraosseous needle insertion.
- 5.5.f Utilize direct pressure infusion devices with intravenous infusions.
- 5.5.g Administer volume expanders (colloid and non-crystalloid).
- 5.5.h Administer blood and/or blood products.
- 5.5.i Conduct automated external defibrillation.
- 5.5.j Conduct manual defibrillation.
- 5.5.k Conduct cardioversion.
- 5.5.l Conduct transcutaneous pacing.
- 6.1.a Provide care to patient experiencing signs and symptoms involving cardiovascular system.
- 6.1.h Provide care to patient experiencing signs and symptoms involving immunologic system.

CNS

- Recognize signs and symptoms of altered mental status and abnormal neurologic function.
- Describe the components of a thorough neurologic system examination.
- Determine the most likely diagnosis, potential conditions requiring emergent treatment, and devise and accurate/appropriate treatment plan for the medical and trauma patient.
- Describe the general assessment process for a patient presenting with abnormal neurologic function using the AMLS Assessment Pathway.
- Outline and interpret diagnostic tests commonly used to assist with working diagnosis.
- NOCP
 - 4.3.d Conduct neurological system assessment and interpret findings.
 - 4.3.m Conduct psychiatric assessment and interpret findings.
 - 6.1.b Provide care to patient experiencing signs and symptoms involving neurological system.
 - 6.1.p Provide care to psychiatric patient.
 - 6.2e Provide care for the mentally impaired patient.

Abdomen and GI/GU

- Understand the functions and locations of the organs and other relevant anatomical structures of the abdomen.
- Appreciate the conditions that may predispose a patient to an abdominal disorder.
- Demonstrate history and assessment skills to identify life threats and abdominal disorders.
- Determine the most likely diagnosis, potential conditions requiring emergent treatment, and devise and accurate/appropriate treatment plan for the medical and trauma patient.
- Describe the assessment process for a patient with acute abdominal pain using the AMLS assessment pathway.
- Outline and interpret diagnostic tests commonly used to assist with working diagnosis.
- NOCP
 - 4.3.g Conduct gastrointestinal system assessment and interpret findings.
 - 4.3.h Conduct genitourinary / reproductive system assessment and interpret findings.
 - 5.5.t Conduct oral and nasal gastric tube insertion.
 - 5.5.u Conduct urinary catheterization.
 - 6.1.d Provide care to patient experiencing signs and symptoms involving genitourinary / reproductive systems.
 - 6.1.e Provide care to patient experiencing signs and symptoms involving gastrointestinal system.

Endocrine, Metabolic, and Electrolytes

- Describe the anatomy and physiology of the endocrine system.
- Describe the pathophysiology of common endocrine disorders.
- Describe the pathophysiology of common metabolic disorders.
- Implement effective treatment plans consistent with assessment findings.

- Determine the most likely diagnosis, potential conditions requiring emergent treatment, and devise and accurate/appropriate treatment plan for the medical and trauma patient.
- Discuss endocrine and metabolic disorders using case scenarios and following the AMLS assessment pathway.
- Outline and interpret diagnostic tests commonly used to assist with working diagnosis.
- NOCP
 - 6.1.i Provide care to patient experiencing signs and symptoms involving endocrine system.
 - Appendix 6 – Laboratory Data (ABG's)

Infectious Diseases and Sepsis

- Identify and discuss the epidemiologic aspects of infectious diseases.
- Understand the pathophysiology and methods of transmission of infectious diseases.
- Discuss the clinical manifestations, treatment, and prevention of common infectious diseases.
- Determine the most likely diagnosis, potential conditions requiring emergent treatment, and devise and accurate/appropriate treatment plan.
- Demonstrate the management of patients with infectious disease using the AMLS Assessment Pathway.
- Outline and interpret diagnostic tests commonly used to assist with working diagnosis.
- NOCP
 - 6.1.h Provide care to patient experiencing signs and symptoms involving immunologic system.

Environmental, Integumentary, and MSK

- Review the basic pathophysiology associated with environmental-related emergencies.
- Discuss early recognition and management of environmental emergencies.
- Discuss management of patients who have been exposed to an environmental-related emergency using the AMLS Assessment Pathway.
- Outline and interpret diagnostic tests commonly used to assist with working diagnosis and/or treatment.
- Perform wound assessment and basic management.
- NOCP
 - 4.3.i Conduct integumentary system assessment and interpret findings.
 - 4.3.j Conduct musculoskeletal assessment and interpret findings.
 - 5.6.a Treat soft tissue injuries.
 - 5.6.b Treat burn.
 - 5.6.d Treat penetration wound.
 - 5.6.e Treat local cold injury.
 - 5.6.f Provide routine wound care.
 - 5.7.a Immobilize suspected fractures involving appendicular skeleton.
 - 5.7.b Immobilize suspected fractures involving axial skeleton.
 - 5.7.c Reduce fractures and dislocations.
 - 6.1.f Provide care to patient experiencing signs and symptoms involving integumentary system.
 - 6.1.g Provide care to patient experiencing signs and symptoms involving musculoskeletal system.
 - 6.1.n Provide care to patient experiencing signs and symptoms due to exposure to adverse environments.

Toxicology and Special Resuscitations

- Identify the basic pathophysiology associated with toxidromes.
- Determine the most likely diagnosis, potential conditions requiring emergent treatment, and devise and accurate/appropriate treatment plan for the medical and trauma patient.

- Describe how to rapidly recognize, diagnose, and manage common toxicologic emergencies using the AMLS Assessment Pathway.
- Implement ACLS-EP concepts for management of toxidromes.
- Outline and interpret diagnostic tests commonly used to assist with working diagnosis and/or ongoing treatment.
- NOCP
 - 6.1.k Provide care to patient experiencing toxicologic syndromes.

Hazardous Materials, and Weapons of Mass Destruction

- Discuss early recognition, management, and resources needed for hazardous environments.
- Discuss and demonstrate effective management of MCI's.
- NOCP
 - 4.1.a Rapidly assess an incident based on the principles of a triage system.
 - 4.1.b Assume different roles in a multiple patient incident.
 - 4.1.c Manage a multiple patient incident.
 - 8.2.b Work within an incident management system (IMS).
 - 8.3.a Recognize indicators of agent exposure.
 - 8.3.b Possess knowledge of personal protective equipment (PPE).
 - 8.3.c Perform CBRNE scene size-up.
 - 8.3.d Conduct triage at CBRNE incident.
 - 8.3.e Conduct decontamination procedures.
 - 8.3.f Provide care to patients involved in CBRNE incident.

Evaluation

- Students must achieve a minimum of **76%** (B) for total course grade to successfully pass the course.
- Participation/attendance in classes has demonstrated better understanding of course content and improved outcomes which maximizes learning experience. Attendance in each class is 1% (to receive 1% when unable to attend, the instructor must be notified PRIOR to class).
- Midterm and Final Exams require mandatory attendance. Absences will require approval from the instructor and program coordinator.
- Absence from exams and quizzes require informing the instructor prior to class and will be handled based on Policies and Procedures for Keyano College: <https://www.keyano.ca/en/about-us/policies-and-procedures.aspx>

Grading System

Descriptor	Alpha Scale	4.0 Numeric Scale	Percentage
Excellent	A+	4.0	96-100
	A	4.0	90-95
	A-	3.7	85-89
Good	B+	3.3	80-84
	B	3.0	76-79
	B-	2.7	72-75
Satisfactory	C+	2.3	68-71
	C	2.0	64-67
	C-	1.7	60-63
Poor Minimum Pass	D+	1.3	55-59
	D	1.0	50-54
Failure	F	0	0-49

Evaluation	Grade weight
Quizzes	
<ul style="list-style-type: none"> 10 Quizzes – one per module (2% each) Multiple choice - 20 questions each quiz 	20%
Midterm Exam	
<ul style="list-style-type: none"> Multiple choice (50 questions) Modules 1 – 5 Mar 21, 2023 at 0900 	20%
Final Exam	
<ul style="list-style-type: none"> Multiple choice (80 questions) Modules 1 – 10 May 30, 2023 at 0900 	40%
Participation	
<ul style="list-style-type: none"> 20 classes – attendance 1% for each class Attendance is mandatory for tech weeks and exams 	20%
Total Course Grade	100%

* Multiple-choice exam designed to introduce the student to the Alberta College of Paramedics' style of written examinations

Proposed Schedule

Classes are Tuesday's and Thursday's – afternoons from 12:00 – 15:00hrs

Dates	Modules, content, and readings
Feb 2, 2023	<p>Module 1: Introduction to ED&T</p> <ul style="list-style-type: none"> • Readings from AMLS : Chapter 1- Advanced Medical Life Support Assessment for the Medical Patient • Reference material from AMLS: Chapter 11- Pharmacology • Review ACP 505 and ACP 508 content throughout course • Readings from ITLS: Chapter 1 - Introduction to Traumatic Disease • Readings from ITLS: Chapter 2 - Trauma Assessment and Management • Readings from ITLS: Chapter 3 - Assessment Skills <p>Quiz 1: Module 1 – Feb 6, 2023 (midnight – midnight)</p>
Feb 7, 2023 Feb 9, 2023	<p>Module 2: Respiratory</p> <ul style="list-style-type: none"> • Readings from AMLS: Chapter 2 - Respiratory Disorders • Readings from ITLS: Chapter 6 - Airway Management • Readings from ITLS: Chapter 7 - Airway Skills • Readings from ITLS: Chapter 8 - Thoracic Trauma • Readings from ITLS: Chapter 9 - Thoracic Trauma Skills • • Review respiratory material from ACP 501, ACP 502, ACP 505, ACP 508 <p>Quiz 2: Module 2 – Feb 13, 2023 (midnight – midnight)</p>
Feb 14, 2023	<p>Module 3: CVS</p> <ul style="list-style-type: none"> • Readings from AMLS: Chapter 3-Cardiovascular Disorders and Conditions Presenting as Chest Pain • Review cardiac material from ACP 501, ACP 502, ACP 505, ACP 508 <p>Quiz 3: Module 3 – Feb 27, 2023 (midnight – midnight)</p>
Feb 16, 2023 Feb 28, 2023	<p>Module 4: Shock</p> <p><i>*READING WEEK – Feb 20-24, 2023</i></p> <ul style="list-style-type: none"> • Readings from AMLS: Chapter 4-Shock • Readings from ITLS: Chapter 4: Hemorrhage Control and Shock • Readings from ITLS: Chapter 5 Shock and Hemorrhage Control Skills • Review cardiac/shock material from ACP 501, ACP 502, ACP 505, ACP 508 <p>Quiz 4: Module 4 – Mar 6, 2023 (midnight – midnight)</p>
Mar 2, 2023 Mar 7, 2023 Mar 9, 2023	<p>Module 5: CNS</p>

- Reading from AMLS: Chapter 5-Neurologic Disorders
- Reading from AMLS: Appendix C-Mental Health Emergencies
- Readings from ITLS: Chapter 12 - Head Trauma and Traumatic Brain Injury
- Readings from ITLS: Chapter 21 - The Impaired Patient
- Review CNS material from ACP 501, ACP 502, ACP 505, ACP 508

Quiz 5: Module 5 – Mar 20, 2023 (midnight – midnight)

Mar 13-17, 2023

TECH WEEK – Modules 1-5

Mar 21, 2023

MIDTERM – Modules 1-5

Mar 23, 2023

Module 6: Abdomen and GI/GU

Mar 28, 2023

- Readings from AMLS: Chapter 6 - Abdominal Disorders
- Readings from ITLS: Chapter 13 - Abdominal Trauma
- Review GI/GU material from ACP 501, ACP 502, ACP 505, ACP 508

Quiz 6: Module 6 – Apr 3, 2023 (midnight – midnight)

Mar 30, 2023

Module 7: Endocrine and Electrolytes

Apr 4, 2023

- Readings from AMLS: Chapter 7-Endocrine and Metabolic Disorders
- Electrolytes, ABG's, and VBG's

Quiz 7: Module 7 – Apr 24, 2023 (midnight – midnight)

Apr 6, 2023

Module 8: Infectious Diseases and Sepsis

- Readings from AMLS: Chapter 8-Infectious Diseases
- Readings from AMLS: Chapter 12-Sepsis

Quiz 8: Module 8 – Apr 24, 2023 (midnight – midnight)

Apr 11-21, 2023

TECH WEEK – Modules 6-8

Apr 25, 2023

Module 9: Environmental and Dermatology/MSK

April 27, 2023

- Readings from AMLS: Chapter 9-Environmental-Related Disorders
- Readings from AMLS: Chapter 10-Toxicology, Hazardous Materials, and Weapons of Mass Destruction – all but toxicology
- Readings from ITLS: Chapter 10 - Spinal Trauma and Spinal Motion Restriction
- Readings from ITLS: Chapter 11 - Spine Management Skills
- Readings from ITLS: Chapter 14 - Extremity Trauma

- Readings from ITLS: Chapter 15 - Extremity Trauma Skills
- Readings from ITLS: Chapter 17 - Burns

Quiz 9: Module 9 – May 1, 2023 (midnight – midnight)

**May 2, 2023
May 4, 2023**

Module 10: Toxicology and Special Resuscitations

- Readings from AMLS: Chapter 10-Toxicology, Hazardous Materials, and Weapons of Mass Destruction – read toxicology
- Additional resources from ACLS-EP

Quiz 10: Module 10 – May 22, 2023 (midnight – midnight)

**May 9, 2023
May 11, 2023**

Review: Modules 1-10

May 15-19 , 2023

TECH WEEK – Modules 1-10

May 30, 2023

**FINAL EXAM
Modules 1 – 10**

Please Note:

Date and time allotted to each topic is subject to change.

Performance Requirements and Student Services

Student Responsibilities

As a student, it is your responsibility to contact the Office of the Registrar to complete the required forms, including the Withdraw Course or Program or a Change of Registration form. Please refer to the important dates listed in the Academic Schedule in the [Keyano College credit calendar](#). The Keyano College credit calendar also has information about Student Rights and the Code of Conduct. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and the Code of Conduct Policies.

Student Attendance

Class attendance is helpful for two reasons: First, class attendance maximizes a student's learning experience. Second, attending class is an excellent way to keep informed of matters relating to the course administration (e.g., the timing of assignments and exams). Ultimately, you are responsible for your learning and performance in this course. It is the responsibility of each student to be prepared for all classes. Absent students are responsible for the material covered in those classes, and students must ensure they are ready for their next class, including completing any missed assignments and notes.

Academic Misconduct

Students are considered responsible adults and should adhere to the principles of intellectual integrity. Intellectual dishonesty takes many forms:

- Plagiarism or the submission of another person's work as their own,
- The use of unauthorized aids in assignments or examinations (cheating),
- Collusion or the unauthorized collaboration with others in preparing work,
- The deliberate misrepresentation of qualifications,
- The willful distortion of results or data,
- Substitution in an examination by another person,
- Submitting unchanged work for another assignment, and
- Breach of confidentiality.

The consequences for academic misconduct range from a verbal reprimand to expulsion from the College. More specific descriptions and details are found in the Student Rights and Code of Conduct section of the Keyano College credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Code of Conduct Policies. To ensure your understanding of plagiarism, you may be required to complete the online [Understanding Plagiarism tutorial](#) and submit the certificate of completion.

Online Learning

Technology and internet connectivity will impact your online learning experience. You may be required to watch online videos, take online quizzes, or participate in live online classes. Live/virtual courses will be hosted in Microsoft Teams or Zoom. For all course delivery types, you will access your course resources on Keyano's learning management system: Moodle (iLearn). Login in using your [Keyano username and password](#). Keyano College operates in a Windows-based environment and having access to the correct tools for online learning is essential.

Internet Speed

Minimum download and upload speeds of 10 Mbps. Recommended download speeds of 25 Mbps and upload speeds of 10 Mbps (if you are sharing your internet at home). You can check your internet speed with [Speedtest by Ookla](#).

Computer System Requirements

Keyano College software are Windows based.

Minimum Requirements and Recommended Upgrades for Windows (preferred system) and Apple devices
These minimum standards are required for a Windows computer/laptop (OS 10 or 11) and a Macintosh (OS 10.14 or above).
<ol style="list-style-type: none"> 1. Windows 10 Operating System or above 2. 4GB of RAM. Recommended upgrade to 8GB of RAM. 3. 10GB+ available hard drive storage space. Note installing Microsoft Office 365 requires 3GB of available hard drive space. <ol style="list-style-type: none"> a. Install the Microsoft Office 365 suite (~3GB) * 4. Microphone, webcam, and speakers (All modern laptops have these three accessories built-in. However, a headset or earbuds with a microphone is also recommended. 5. Windows has built-in anti-virus/malware software. It is essential to install system updates to keep your device secured regularly. <p>*Microsoft Office 365 is free to Keyano students.</p>
Tablets, iPads, and Chromebooks are not recommended: they may not be compatible with the testing lockdown browsers and Microsoft Office 365.

Specific Department Requirements

Business and OA programs require Windows 10 or higher.
Other programs may utilize Windows-based tools as well.

Computer Software

Students have access to Microsoft Office 365 and Read & Write for free using Keyano credentials.

See [Recommended Technology](#) for more information.

Recording of Lectures and Intellectual Property

Students may only record a lecture if explicit permission is provided by the instructor or Accessibility Services. Even if students have permission to record a lecture or lecture materials, students may not share, distribute, or publish any of the lectures or course materials; this includes any recordings, slides, instructor notes, etc., on any platform. Thus, no student is allowed to share, distribute, publish or sell course-related content without permission. It is important to recognize that the Canadian Copyright Act contains provisions for intellectual property. The [Academic Integrity Policy](#) provides additional information on Keyano College's expectations from students as members of the intellectual community.

ITS Helpdesk

If you have issues with your student account, you can contact the ITS Helpdesk by emailing its.helpdesk@keyano.ca or calling 780-791-4965.

Specialized Supports

The Student Services Department is committed to Keyano students and their academic success. There is a variety of student support available at Keyano. All student services are available during Keyano business hours: Monday to Friday, 8:30 a.m. to 4:30 p.m. The College is closed on statutory holidays. If you require support outside of regular business hours, please inform the support service team, and they will do their best to accommodate your needs.

Accessibility Services provides accommodations for students living with disabilities. Students with documented disabilities or who suspect a disability can meet with an Access Strategist to discuss their current learning barriers and possible accommodations. Students who have accessed accommodations in the past are encouraged to contact the department to request accommodations for the following semester. Please note that requesting accommodations is a process and requires time to arrange. Contact the department as soon as you know you may require accommodations. For accessibility supports and disability-based funding, please book an appointment by emailing us at: accessibility.services@keyano.ca.

Accessibility Services also provides individual and group learning strategy instruction for all students and technology training and support to enhance learning. You can meet with an Access Strategist to learn studying and test-taking strategies. In addition, you can schedule an appointment with the Assistive Technology Specialist to explore technology tools for learning. Book an appointment today by emailing: accessibility.services@keyano.ca

Wellness Services offers a caring, inclusive, and respectful environment where students can access free group and individual support to meet academic and life challenges. Mental Health Coordinators provide a safe and confidential environment for you to seek help with personal concerns. Our Wellness Navigator offers support with basic needs such as housing, financial and nutritional support, and outside referrals when needed. Wellness Services welcomes students to participate in group sessions that address topics including mindfulness and test anxiety throughout the academic year. Individual appointments can be made by emailing wellness.services@keyano.ca.

Library Services provides students with research, information, and educational technology supports as they engage in their studies. Library staff are available to help you online and in person throughout the semester. Librarians offer individual and small group consultations booked using the online [Book A Librarian calendar](#). The library also provides virtual research and subject guides to help you with your studies. Find the guide that supports your course-related research by viewing the complete list of online [Subject Guides](#). To start your research and access citation guides (APA, MLA, Chicago, or IEEE), visit the [Research Help page](#). The library's collections (including print and online materials) are searchable using [OneSearch](#). The library offers a Loanable Technology collection to support students accessing and using technology. For an up-to-date list of technology available for borrowing, visit the library's [Loanable Technology webpage](#). For a detailed list of library resources and services, go to www.keyano.ca/library. For all inquiries, please email askthelibrary@keyano.ca or [chat with us online](#).

The **Academic Success Centre** at Keyano College (CC-119) provides **free** academic support services to registered students, such as tutoring, writing support, facilitated study groups, workshops, and study space. Academic Content Specialists are available in Mathematics, Science, Trades, Power Engineering, Upgrading/College Prep, Human Services, English, Humanities, and more. Students are encouraged to visit the Academic Success Centre to discuss study strategies and academic concerns. For additional information, please email Academic.Success@keyano.ca.

The **Academic Success Coach** is located in the Academic Success Centre and works with students to develop academic success plans, time management skills, study strategies, and homework plans. For additional information, please email Academic.Success@keyano.ca.

Authorization

This course outline has been reviewed and approved by the Program Chair.

[Manpreet, Uppal], Instructor

[Candi, Muise], Chair

Date Authorized

[Arlene, Starks], Dean

Date Authorized

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