

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

6 credits, average two 3-hour classes per week

Course Description

This course deals with the diagnosis, treatment, and overall management of both medical and trauma emergencies at the Advanced Care Paramedic (ACP) level. Diagnoses are obtained through a combination of pathophysiology knowledge, physical exam, symptoms, history, and diagnostic tests. Critical thinking and holistic approaches are crucial to implementing differential diagnoses, arrive at a working diagnosis, and ultimately implementing appropriate treatment plans for optimal patient outcomes. Developing treatment plans for various conditions will be explored using evidence-based practice, protocols, national competencies, International Trauma Life Support (ITLS), and Advanced Cardiac Life Support (ACLS) to confidently navigate through the current and future scope of practice for ACP's.

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

Co-requisites: ACP 507 and ACP 508

Instructors

Dawn Brownschlaigle ACP, BScHS, BSN
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Office Hours

0830 - 1630

Hours of Instruction

90

Resources

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

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.

Tintinalli, J. E., Stapczynski, J. S., Ma, O. J., Yealy, D. M., Meckler, G. D., & Cline, D. (2019). *Tintinalli's emergency medicine: A comprehensive study guide* (9th ed.). New York: McGraw-Hill Education.

Course Outcomes

Upon successful completion of the course, the student shall be able to demonstrate at an ACP level:

- Understanding, considerations, and implementation of standards of practice, scope of practice, protocols, and national competencies for a variety of medical and trauma emergencies
- Enhanced scene surveys, assessments, treatments, and overall call management
- Encompassed pathophysiology, physical exam, presenting symptoms, history, and diagnostic tests to apply critical thinking and holistic approaches
- Differential diagnoses and working diagnoses for a variety of medical and trauma emergencies
- Implement treatment plans based on working diagnosis for optimal patient outcomes
- Utilization of research to guide evidence-based practices
- Competently perform high fidelity simulation (HFS) to enhance knowledge and performance in medical and trauma emergencies

Evaluation

- Students must achieve a minimum of **75%** for total course grade to progress
- Students must achieve a minimum of **75%** for the midterm and final exams
- Midterm and Final Exams require mandatory attendance. Absences will require approval
- 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>

Evaluation	Grade weight
Quizzes <ul style="list-style-type: none">• There will be 7 quizzes total - the <u>best 6 quiz grades</u> will be used for final course grading (5% each)• Quizzes for Modules 1-8• Multiple choice (10 questions each)	30%
Midterm Exam <ul style="list-style-type: none">• Multiple choice (80 questions)• Minimum grade of 75%• Modules 1 – 5• <i>November 16, 2021 at 0900</i>	30%
Final Exam <ul style="list-style-type: none">• Multiple choice (100 questions)• Minimum grade of 75%• Modules 1 – 9• <i>January 28, 2022 at 0900</i>	40%
Total Course Grade	100%

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

Proposed Schedule

Dates	Modules and content
October 5, 2021	Module 1: <i>Introduction to Emergency Diagnosis and Treatment</i> <ul style="list-style-type: none"> • Course outline and expectations • Scene survey, triage, and MCI • Terms surrounding diagnoses • Introduction to pain management • Resources for evidence-based knowledge and practice
October 7 & 12, 2021 <i>Opens October 11 at 0900</i> <i>Closes October 12 at 0900</i>	Module 2: <i>ACLS introduction</i> <i>Quiz 1 – Module 1: Intro to ED&T</i> <ul style="list-style-type: none"> • Basic algorithms and associated ECG's (asystole, VF, VT, PEA, bradycardias, and tachycardias) • Primary and secondary ABCD's • Differential diagnosis considerations in ACLS
October 14, 19, & 21, 2021 <i>Opens October 18 at 0900</i> <i>Closes October 19 at 0900</i>	Module 3: <i>CNS</i> <i>Quiz 2 – Module 2: ACLS introduction</i> <ul style="list-style-type: none"> • Altered mental status and GCS • CVA • Trauma and ICP • Seizures • Agitation and psychiatric emergencies
October 26 & 28, 2021 November 2, 2021 <i>Opens October 25 at 0900</i> <i>Closes October 26 at 0900</i>	Module 4: <i>Respiratory</i> <i>Quiz 3 – Module 3: CNS</i> <ul style="list-style-type: none"> • EENT • Shortness of breath and dyspnea • Asthma • Anaphylaxis • Trauma emergencies affecting airway and breathing
November 4 (am), 2021 November 9 (am pm), 2021 <i>Opens November 8 at 0900</i> <i>Closes November 9 at 0900</i>	Module 5: <i>Cardiovascular</i> <i>Quiz 4 – Module 4: Respiratory</i> <ul style="list-style-type: none"> • 12-15 lead interpretation • Hypertension • Shock • Sepsis • Acute coronary syndromes (ACS) – STEMI, non-STEMI, and angina • CHF • AAA • Bleeding • Trauma
November 16, 2021 @ 0900	MIDTERM Modules 1 – 5

November 18 & 30, 2021	Module 6: <i>GI/GU and Abdominal</i> Renal failure <ul style="list-style-type: none"> • Electrolyte disorders (introduction) • Gastrointestinal emergencies • Acute abdominal pain (medical and trauma)
November 22-26, 2021	TECH WEEK
December 2 & 7(am), 2021 <i>Opens December 6 at 0900</i> <i>Closes December 7 at 0900</i>	Module 7: <i>Endocrine and Electrolytes</i> <i>Quiz 5 – Module 6: <i>GI/GU and Abdominal</i></i> <ul style="list-style-type: none"> • Diabetic emergencies • Electrolyte disorders • Acid base balance and ABG's
December 7 (pm), 2021 December 9 (am), 2021	Module 8: <i>MSK and Dermatology</i> <i>Quiz 6 – Module 7: <i>Endocrine and Electrolytes</i></i> <ul style="list-style-type: none"> • Trauma and Burns • Medical • Wound management
<i>Opens December 13 at 0900</i> <i>Closes December 14 at 0900</i>	
December 9(pm), 2021 January 18 & 20, 2022 <i>Opens December 16 at 0900</i> <i>Closes December 17 at 0900</i>	Module 9: <i>ACLS Special Resuscitations and putting it all together</i> <i>Quiz 7 – Module 8: <i>MSK and Dermatology</i></i> <ul style="list-style-type: none"> • Review ACLS basics (from beginning of course) • Toxicology • Environmental emergencies • Trauma and pregnancy– cardiac arrest
January 10-14, 2022	TECH WEEK
<i>January 28, 2022 @ 0900</i>	FINAL EXAM Modules 1 – 9

Please Note:

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

Performance Requirements and Student Services

Student Responsibilities

It is your responsibility as a student to contact the Office of the Registrar to complete the forms for Withdrawal or Change of Registration, and any other forms. Please refer to the list of important dates as noted in the Academic Schedule in the [Keyano College credit calendar](#). The Keyano College credit calendar also has information about Student Rights and Code of Conduct. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Code of Conduct Policies.

Student Attendance

Class attendance is useful for two reasons. First, class attendance maximizes a student's learning experience. Second, attending class is a good way to keep informed of matters relating to the administration of the course (e.g., the timing of assignments and exams). Ultimately, you are responsible for your own learning and performance in this course.

It is the responsibility of each student to be prepared for all classes. Students who miss classes are responsible for the material covered in those classes and for ensuring that they are prepared for the next class, including the completion of any assignments and notes that may be due.

Academic Misconduct

Students are considered to be responsible adults and should adhere to principles of intellectual integrity. Intellectual dishonesty may take many forms, such as:

- Plagiarism or the submission of another person's work as one's 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;
- Handing in the same unchanged work as submitted 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.

In order to ensure your understanding of the concept of plagiarism, [you must successfully complete the online tutorial found on \[ilearn.keyano.ca\]\(http://ilearn.keyano.ca\). Then print the certificate, sign it, and show it to each of your instructors.](#) Your course work may not be graded until you show this signed certificate.

Specialized Supports

The Student Services Department is committed to Keyano students and their academic success. There are a variety of student supports available at Keyano. Due to the continuing situation with the Covid-19 pandemic, the offered support services will be implemented through a model to respond to the restrictions in force at the time. In-person and virtual services will be offered. All Alberta Health Services guidelines will be followed for in-person appointments—wear a mask, maintain two meters of physical distance, use hand sanitizer, and stay home if you are unwell.

All student services are available during Keyano business hours: Monday to Friday, 8h30-16h30. The College is closed for statutory holidays. If you require support outside of regular business hours, please inform the support service team, and we will do our best to accommodate your needs.

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

Accessibility Services also provides individual and group learning strategy instruction for all students, as well as technology training and supports to enhance learning. Meet with a Learning Strategist to learn studying and test-taking strategies for online classes. 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 offer a safe and confidential environment to seek help with personal concerns. Students may access services virtually and in-person.

Wellness Services welcomes students to participate in any of the group sessions offered throughout the academic year addressing topics including mindfulness and test anxiety.

Individual appointments can be made by emailing wellness.services@keyano.ca.

Library Services: provides students with research and information supports as they engage in their studies. Library staff are available to support you both online and in-person throughout the semester. For a detailed list of library supports and services, go to www.keyano.ca/library. For all inquiries, please email askthelibrary@keyano.ca or chat with us online.

Begin your research with the [Library's FIND page](#). Search for information and sources for your assignments using the OneSearch, the Library's Catalogue, or by searching in a specific database selected from the [A-Z Database List](#).

Individual support with us is available. For support with citations, research and other information needs, appointments can be booked using the online [Book A Librarian Calendar](#). For support with Moodle, educational tools for assignments, Microsoft Office, Zoom, Teams and more, book an appointment using the online [Educational Technology Support Calendar](#).

Research and subject guides are helpful resources when beginning your research, assignment, using new educational technology, or addressing other information needs. To view a subject or course-specific guide, check out the complete listing of online [Subject Guides](#).

To access additional research resources, including Citation Guides (APA, MLA, Chicago, or IEEE), go to the [Research Help Library page](#).

The Loanable Technology collection is available to support students in their learning pursuits, whether online, in person or both. Items available for borrowing include mobile projectors, webcams, noise-cancelling headphones, Chromebooks, and laptops. For an up-to-date list of technology available for borrowing as well as support available, go to the Library's [Loanable Technology webpage](#).

Academic Success Centre: The Academic Success Centre is a learning space in the Clearwater Campus (CC-119) at Keyano College. Students can gather to share ideas, collaborate on projects, get new perspectives on learning from our Academic Content Specialists, or use the Centre's educational resources. The Academic Success Centre provides academic support services to students registered in credit programs at Keyano College in the form of individual tutoring, writing support groups, facilitated study groups, workshops, and study space. Services are **free** to Keyano students.

Academic Content Specialists are available in the areas of Math, Science, Human Services, and English/Humanities. This covers all courses offered at Keyano. The Academic Success Coach can also be found in the Academic Success Centre.

For the most up to date information on how to book a session, please view [the Keyano Academic Success Centre homepage](#).

Academic Integrity: The goal of the Academic Success Centre is to foster a student's ability to learn effectively and independently. Students registered at Keyano College are welcome to drop by the Centre to visit with any of our Academic Content Specialists to discuss their academic concerns.

Availability: Monday to Friday: 8:30 a.m. – 4:30 p.m. Flexible times may be available upon request. Virtual and in-person sessions, please email to get in contact with our Academic Content Specialists. For the most up to date information on how to book a session, please view the [Academic Success Centre homepage](#).

Academic Success Coach: offers you support and access to resources for your academic success to help you to find the Keys to your Success. The Academic Success Coach will work with you to develop an academic success plan, develop your study and time management skills, and connect you with the right resources here at Keyano. Academic.success@keyano.ca is the best way to access resources during blended service delivery. The Academic Success Coach is located in the Skill Centre in CC-119 at the Clearwater Campus.

E-Learning

Technology and internet will impact your online learning experience. It's important that you can watch an online video and other course materials, take online quizzes and participate in a live class with your instructor and other students. Live/virtual classes 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 the correct tools for online learning is important. Here's a list of recommended system requirements.

Internet Speed

Minimum Internet speeds of 10 Mbps.

Recommended Internet speeds of 25 Mbps (especially if you are sharing your internet at home).

Check your internet speed with Fast.com.

System requirements:

Microsoft Windows	Apple
<p>Minimum Requirements:</p> <p>A Windows 10 computer/laptop</p> <ul style="list-style-type: none"> · Minimum 4GB of RAM. · 10GB+ available hard drive storage. · Enough available hard drive space to install the Microsoft Office suite (approximately 3GB). <u>Microsoft Office</u> software is free to all Keyano students and employees. · Microphone, webcam and speakers. A headset with a microphone is recommended. · System updates must be regularly installed. · Anti-Virus / Anti-Malware software 	<p>Minimum Requirements:</p> <p>A Macintosh (V10.14 and above) computer/laptop</p> <ul style="list-style-type: none"> · Minimum 4GB of RAM. · 10GB+ available hard drive storage. · Enough available hard drive space to install the Microsoft Office suite (approximately 3GB). <u>Microsoft Office</u> software is free to all Keyano students and employees. · Microphone, webcam and speakers. A headset with a microphone is recommended. · System updates must be regularly installed. · Anti-Virus / Anti-Malware software.
<p>Recommended Requirements</p> <ul style="list-style-type: none"> · 8GB of RAM · A method of backing up/synchronizing to local or cloud-based storage such as OneDrive is highly recommended. This is included if you complete the setup of KeyanoMail and download MS Office using your Keyano email for free. 	<p>Recommended Requirements</p> <ul style="list-style-type: none"> · 8GB of RAM · A method of backing up/synchronizing to local or cloud-based storage such as OneDrive is highly recommended. This is included if you complete the setup of KeyanoMail and download MS Office using your Keyano email for free.
<p>Chromebooks are not recommended as they are not compatible with testing lockdown browsers.</p> <p>A Microsoft Surface or iPad or iPad Pro may be possible alternatives in some program areas.</p>	

Specific Department Requirements:

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

Computer Software

Students will be able to get access to Microsoft Office 365 for free using Keyano credentials by [clicking here](#).

Recording of Lectures and Intellectual Property

Students may only record a lecture if explicit permission is provided by the instructor or by 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 (instructor, or students) 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 are having issues with your student account, you can contact the ITS Helpdesk by emailing its.helpdesk@keyano.ca or calling 780-791-4965.