



Fall 2026 Course Syllabus
MOS 3305A Sections 200 & 201
Human Factors in Aviation

Course Mode (Blended)

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Office Hours: By appointment only

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1. Course Information

1.1 Class Location and Time

In-Person or Online (SSC 3018, Tuesdays 9:30-12:30) Section 200

In Person or Online (SSC 3018, Tuesdays 13:30-16:30) Section 201

1.2 Course Description

Psychology and physiology as they relate to human performance in a complex operating environment. Topics include pilot decision-making and crew resource management, interpersonal relations, effects of noise and vibration, pressure change, balance, motion sickness, jet lag, human factors in aircraft accidents.

Antirequisite(s): n/a

Prerequisite(s): Enrollment in 3rd or 4th year of the Commercial Aviation Management module of BMOS or Geography and Commercial Aviation Management module

1.3 Accessibility

DAN Department of Management & Organizational Studies strives at all times to provide accessibility to all faculty, staff, students and visitors in a way that respects the dignity and independence of people with disabilities.

Contact Academic Support & Engagement at <http://academicsupport.uwo.ca/> for information about Western's Accessible Education.

More information about "Accessibility at Western" is available at: <http://accessibility.uwo.ca>

1.4 Land Acknowledgement

We acknowledge that Western University is located on the traditional lands of the Anishinaabek, Haudenosaunee, Lūnaapéewak and Attawandaron peoples, on lands connected with the London Township and Sombra Treaties of 1796 and the Dish with One Spoon Covenant Wampum.

With this, we respect the longstanding relationships that Indigenous Nations have to this land, as they are the original caretakers. We acknowledge historical and ongoing injustices that Indigenous Peoples (e.g. First Nations, Métis and Inuit) endure in Canada, and we accept responsibility as a public institution to contribute toward revealing and correcting miseducation as well as renewing respectful relationships with Indigenous communities through our teaching, research and community service.

1.5 Senate Regulations

Senate Regulations state, “unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you will be removed from this course, and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.”

This regulation is in regard to the PREREQUISITE COURSES required.

2. Course Materials

The course reference text will be the *CASA Safety Behaviors: Human Factors for Pilots 4th edition* plus items discussed in class.

Students are required to use the *CASA Safety Behaviors: Human Factors for Pilots* Workbook and the accompanying weekly exercise materials posted in Brightspace.

These documents will form the primary basis for course readings, discussions and asynchronous activities.

Links to the above can be found on Brightspace.

3. Course Objectives and Format

The DAN Department of Management and Organizational Studies as a whole draw upon an evidence-based management approach. Evidence-based management is the systematic process of gathering evidence from multiple sources, critically appraising the evidence, and using that evidence in making and evaluating management decisions to improve organizational performance.

3.1 Course objectives

By the end of this session, students will be able to: Recall key concepts from foundational human factors. Explain the relevance of human factors in aviation. Differentiate between individual and system-level human performance issues. Apply concepts to real-world case studies.

3.2 Course format

This course is delivered in a blended format. Each teaching week normally consists of approximately two hours of scheduled in-person instruction and one hour of required asynchronous learning completed through Brightspace. Asynchronous learning activities may include assigned readings, CASA workbook exercises, videos, aviation case analyses and knowledge checks. Instructions and completion deadlines will be posted in Brightspace.

3.3 Key Dates

Wednesday, September 9 — Classes begin.

Thursday, September 17 — Last day to add a course and last day to drop a course without it appearing on the transcript.

Wednesday, September 30 — National Day for Truth and Reconciliation. Non-instructional day—no classes, quizzes, tests or assignment deadlines may be scheduled.

Friday, October 9 at 6:00 p.m. — Fall Reading Week begins.

Monday, October 12 — Thanksgiving Day.

Sunday, October 18 at 11:59 p.m. — Fall Reading Week ends.

Monday, November 30 — Last day to withdraw from a Fall-term course without academic penalty. The course will appear as WDN on the transcript.

Wednesday, December 9 — Last day of classes.

Thursday, December 10 — Study Day.

December 11–22 — Final examination period.

MOS 3305 scheduling note: *The Tuesday before Reading Week is October 6; the first Tuesday after Reading Week is October 20.*

4. Learning Outcomes

Develop a comprehensive understanding of the field of Human Factors and Ergonomics, including its historical background and significance in various industries.

Analyze and compare different Human Factors Models like Dirty Dozen, PEAR, and Swiss Cheese to comprehend their applications in identifying errors and improving safety.

Explore the intricacies of Human Information Processing, covering topics such as memory, errors, Hick's Law, Fitt's Law, and their practical implications in design.

Evaluate the role of Control Design, Warning Signs, Symbols, and Flight Deck Aesthetics in enhancing user experience and safety in various contexts.

Examine the complex interplay between Pilot Performance, Workload, Psychosocial Factors, and Work Environment Design, including the effects of light, noise, and vibration on human capabilities.

Analyze the factors influencing Human Performance, such as Jet lag, Fatigue, Body rhythms, Sleep/Nap patterns, Motion sickness, and their relevance in work scheduling.

Investigate the critical aspects of Risks, Accidents, Safety, and Investigations, gain insights into accident causation, prevention, and safety protocols.

Develop strategies for effectively Selling Human Factors/Ergonomics concepts and gaining buy-in from stakeholders, considering communication and persuasion techniques.

4.1 General information about missed coursework

Students must familiarize themselves with the *University Policy on Academic Consideration – Undergraduate Students in First Entry Programs* posted on the Academic Calendar:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration_Sep24.pdf.

This policy does not apply to requests for Academic Consideration submitted for **attempted or completed work**, whether online or in person.

The policy also does not apply to students experiencing longer-term impacts on their academic responsibilities. These students should consult [Accessible Education](#).

For procedures on how to submit Academic Consideration requests, please see the information posted on the Office of the Registrar's webpage:

https://registrar.uwo.ca/academics/academic_considerations/

All requests for Academic Consideration must be made within 48 hours after the assessment date or submission deadline.

All Academic Consideration requests must include supporting documentation; however, recognizing that formal documentation may not be available in some extenuating circumstances, the policy allows students to make one Academic Consideration request **without supporting documentation** in this course. However, the following assessments are excluded from this, and therefore always require formal supporting documentation:

Examinations (Midterm & Final) (Defined by policy)

When a student mistakenly submits their one allowed Academic Consideration request **without supporting documentation** for the assessments listed above or those in the **Coursework with Assessment Flexibility** section below, the request cannot be recalled and reapplied. This privilege is forfeited.

4.2 Evaluation Scheme for Missed Assessments

Midterm Examination — 30% October 20, 2026

Where Academic Consideration is granted, a make-up examination may be scheduled within the designated make-up period.

Asynchronous Knowledge Test — 15% November 17, 2026

Where Academic Consideration is granted, up to 48 hours of additional time may be provided.

Final Examination — 30% Scheduled by the Registrar

An approved absence is addressed through Western's Special Examination process.

Human Factors Assignment — 25% November 24, 2026 at 12:00 p.m.

A late penalty of 10% per day applies until submission. Where Academic Consideration is granted, up to 48 hours of additional time may be provided.

When a student misses the Final Exam and their Academic Consideration has been granted, they will be allowed to write the Special Examination. See the Academic Calendar for details (under [Special Examinations](#)), especially for those who miss multiple final exams within one examination period.

The date and time of the make-up examination will be determined by the department and the University Special Examination dates as outlined in the Academic Handbook:

https://www.uwo.ca/univsec/pdf/academic_policies/exam/definitions.pdf.

The make-up exam for the missed final exam will be held **after the first Thursday in January following the beginning of classes**

The date and time of the make-up examination will be set by the instructor, who will communicate the date to the student.

If a student is unable to meet the scheduled make-up, then the student is responsible for obtaining new accommodation from Academic Counselling and seeking a new make-up date with the instructor within a reasonable time frame.

Essential Learning Requirements

Even when Academic Considerations are granted for missed coursework, the following are deemed essential to earn a passing grade.

- a passing grade on essays a course designated as an “essay course” (i.e., with a suffix of E, F, G, or Z) to satisfy the Senate requirement that students must demonstrate “some minimal competence in essay writing” in order to pass the course,
- a passing grade on at least one midterm test when at least two are scheduled, a minimum grade on the final exam (or a minimum average on the midterm test(s) and final exam) to ensure that students demonstrate sufficient mastery of the learning outcomes.

The consequences of not meeting the requirement where Academic Considerations are not granted will result in a grade of Incomplete (INC) and their maximum course load may be reduced during the term in which they complete their course requirements.

5. Evaluation

Midterm Exam: 30% — October 20, 2026

Asynchronous Knowledge Test: 15% — November 17, 2026

Human Factors Assignment: 25% — November 24, 2026 at 12:00 p.m.

Final Exam: 30% — TBA

Tests and Exams are **multiple choice and short essay in format**. Each test or exam will be scheduled for 90 minutes **and are closed book examinations conducted in class**.

Electronic devices of any kind, including (but not limited to) cell phones, smartwatches, and earphones/headphones, are NOT permitted at exams.

Students are responsible for the material covered in the lectures as well as the assigned chapters/sections in the text. Exams will not be returned to students but may be reviewed by contacting your instructor.

Students are **REQUIRED TO COMPLETE ALL COMPONENTS** of this course. There are no exceptions to this. Extra assignments to improve grades **will NOT** be allowed.

Grades will not be adjusted on the basis of need. It is important to monitor your performance on the course. Remember: *You* are responsible for your grades in this course.

The DAN Department has a grade policy which states that for courses in the 3000-4000 range, the class average must fall between 70% and 77% for all sections of a course taught by the same instructor. In very exceptional circumstances only, class averages outside this range may be approved by the Undergraduate Chair or Chair. Class averages are not grounds for appeal.

6. Lecture and Examination Schedule

Week 1 — Tuesday, September 8: No class — classes begin September 9

Week 2 — Tuesday, September 15: Human Factors Overview

Week 3 — Tuesday, September 22: Safety Culture

Week 4 — Tuesday, September 29: Human Performance; Mental Health; Physical and Physiological Safety

Week 5 — Tuesday, October 6: Crew Resource Management and Teamwork

Week 6 — October 10–18: Fall Reading Week — no class

Week 7 — Tuesday, October 20: Midterm Examination — in class

Week 8 — Tuesday, October 27: Situational Awareness

Week 9 — Tuesday, November 3: Threat and Error Management

Week 10 — Tuesday, November 10: Information Processing

Week 11 — Tuesday, November 17: Asynchronous Knowledge Test; Flying Health and Fatigue; Fatigue Risk Management Systems

Week 12 — Tuesday, November 24: Preparing to Fly and Fit to Fly

Week 13 — Tuesday, December 1: Design and Automation

Week 14 — Tuesday, December 8: Review and Guest Speaker

FINAL EXAM scheduled by Registrar – December 11-22, 2026

7. Student Responsibilities

Students should familiarize themselves with Western University Senate Regulations, please see: http://www.uwo.ca/univsec/academic_policies/index.html.

Students who want to do well on this course are **strongly encouraged** to attend lectures on a regular basis. Please note that the instructor will not be providing copies of lectures, notes or overheads. Therefore, if you miss a lecture, you should try to obtain this material from another student.

7.1 Respect

Please act respectfully towards the classroom, the instructor and your fellow students. Acting respectfully means arriving on time, turning off phones, avoiding private discussions during lectures, refraining from viewing non-course material on your laptops, and cleaning up after yourself. Acting respectfully provides a better learning experience for everyone.

Private in-class discussions are distracting to students and the instructor. If other students are distracting your attention from the material, you should ask them to be quiet. If you feel uncomfortable doing this (or the problem persists), please see your instructor.

Late arrivals are also distracting. Please try to arrive on time for classes.

7.2 No Recording of Classes

Students are not permitted to record any portion of a class, audio or video, without the prior written permission of the instructor.

7.3 Copyright Notice

Lectures and course materials, including power point presentations, outlines, and similar materials, are protected by copyright. You may take notes and make copies of course materials for your own educational use. You may **not** record lectures, reproduce (or allow others to reproduce), post or distribute lecture notes, wiki material, and other course materials publicly and/or for commercial purposes without the written consent of your instructor.

8. Exam Policies

- Bring student identification to exams.
- Nothing is to be on/at one's desk during an exam except a pencil, an eraser, and the individual's student card
- Do not wear baseball caps to exams
- Do not bring or wear smart watches, music players, cell phones, beepers, or other electronic devices to exams

9. E-mail Policies

The following policies apply to all emails between students and the instructor. Please respect the fact that your Instructor receives hundreds of emails from students and must deal with those emails in a fair and organized manner. Unacceptable emails will receive a reply saying only "Please see Email Policies on the course outline".

9.1 UWO.CA Email Addresses Only

For privacy reasons, students must use their Western email accounts to contact their Instructor. The Instructor will not respond to emails from non-uwo.ca addresses (e.g. hotmail.com, gmail.com, etc.).

9.2 Subject Line Must Include Course and Section Number

The subject line of emails must contain the name or number of the course, and the section number in which the student is enrolled. The Instructor teaches different courses and sections and cannot properly respond to questions if they do not know which course or section you are enrolled in.

9.3 Acceptable Emails

- questions about the course content or materials
- asking to set up an appointment to ask questions or review an exam
- notification of illness or other special circumstances
- providing constructive comments or feedback about the course

9.4 Unacceptable Emails

- questions that may be answered on OWL or on this course outline
- asking when grades will be posted
- asking what grade a student received
- asking where or when an exam is scheduled or the material covered on an exam
- requests for grade increases, extra assignments, or reweighting of course components

10. Attendance

IN-PERSON: It is expected that students will attend all classes. The instructor does not provide access to lecture notes. Students are encouraged to obtain missed lecture notes from a fellow student.

10.1 Short Absences

If you miss a class due to minor illness or other problems, check your course outlines for information regarding attendance requirements and make sure you are not missing a test or exam.

Cover any readings and arrange to borrow the missed lectures notes from a classmate.

10.2 Extended Absences

If you are absent more than approximately two weeks or if you get too far behind to catch up, you should consider reducing your workload by dropping one or more courses. The Academic Counsellors can help you to consider alternatives. At your request, they can also keep your instructors informed about your difficulties.

11. Grade Fairness

Fairness requires that all students be treated equally and be evaluated using the criteria set out in this course outline. The evaluation criteria are based on actual achievement and not on how hard a student has tried.

Claims by students of an excellent academic history, good attendance record, need to obtain or maintain a scholarship, desire to be admitted to Ivey or graduate school, or other personal issues, cannot be used to justify a higher grade in the course or a reweighting of course components. There is no extra work or assignments available for extra credit or to "make up" for a course component that was missed or performed poorly.

You, the student, are responsible for the grades earned.

12. Posting of Grades

Midterm exam grades will be posted on OWL once the grades are available. Final exam grades and final course grades are not posted on OWL and are available once they have been posted by the Registrar under "Academic Summary" at the Student Centre website.

13. University Policy Regarding Illness, Absence and Accommodation

13.1 Illness

Students will need to provide a Student Medical Certificate if the absence is medical or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty Academic Counselling office to obtain more information about the relevant documentation.

For privacy reasons, students should also note that individual instructors should not receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. All documentation required for absences must be submitted to the Academic Counselling office of a student's Home Faculty.

For details on the Policy on Accommodation for Medical Illness, go to:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration.pdf

Students can download the Student Medical Certificate (SMC) here:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf

13.2 Accessible Education

Students with disabilities work with Accessible Education (formerly SSD), which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The accommodation policy can be found here:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf

Students needing access to Accessible Education should register here:

http://academicsupport.uwo.ca/accessible_education/index.html

13.3 Religious Accommodation

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course

requirements will be affected by a religious observance. Additional information is given in the Western Multicultural Calendar.

13.4 Make Up Examinations

A student must write a make-up exam if any scheduled exam is missed for reasons for which adequate documentation is received by the instructor (this documentation must be supplied by the Academic Counseling office).

The date and time of the make-up examination will be determined by the department and the University Special Examination dates as outlined in the Academic Handbook:
https://www.uwo.ca/univsec/pdf/academic_policies/exam/definitions.pdf.

If a student is unable to meet the scheduled make-up, then the student is responsible for obtaining new accommodations from Academic Counselling and seeking a new make-up date with the instructor within a reasonable time frame (i.e. 1 week).

14. University Policy on Cheating and Academic Misconduct

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:
http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf

Students are responsible for understanding the nature of and avoiding the occurrence of plagiarism and other academic offenses. Students are urged to read the section on Scholastic Offenses in the Academic Calendar.

Note that such offenses include plagiarism, cheating on an examination, submitting false or fraudulent assignments or credentials, impersonating a candidate, or submitting for credit in any course without the knowledge and approval of the instructor to whom it is submitted, any academic work for which credit has previously been obtained or is being sought in another course in the University or elsewhere. If you are in doubt about whether what you are doing is inappropriate, consult your instructor. A claim that "you didn't know it was wrong" will not be accepted as an excuse.

Within this course, students are permitted to use AI tools exclusively for information gathering and preliminary research purposes. These tools are intended to enhance the learning experience by providing access to diverse information sources. However, it is essential that students critically evaluate the obtained information, exercise independent thinking, and engage in original research to synthesize and develop their own ideas, arguments and perspectives. The use of AI tools can serve as a starting point for exploring a topic, with students expected to uphold academic integrity by appropriately attributing all sources of information and avoiding plagiarism. Essays, written assignments and/or lab reports should reflect the student's own thoughts and independent written work. Students should also generate their own figures (e.g., graphs, diagrams) rather than using AI generated ones. By adhering to these guidelines, students contribute to a responsible and effective learning environment that promotes critical thinking, independent inquiry and all them to produce original written contributions. The same principles also apply to the use of translation software to support the writing of the essays and other written assessments.

A copy of guidelines about how to avoid cheating can be obtained from the Office of the Ombudsperson, Room 3135 WSSB, (519) 661-3573, ombuds@uwo.ca.

Cheating on exams will not be tolerated; students are referred to the university policy on scholastic offenses. Looking at the test of another student, allowing another student to view your exam, or obtaining information about a test in advance are all examples of cheating.

Students found cheating will receive zero (0%) on that exam. A number of safeguards will be employed to discourage cheating. For example, examination supervisors (proctors) of the tests may ask students to move to another seat during the exam, cover their paper, avert their eyes from other students' papers, remove baseball caps, etc. This is not meant as a personal affront nor as an accusation of cheating, rather as vigilant attempts at proctoring.

The penalties for a student guilty of a scholastic offense include refusal of a passing grade in the assignment, refusal of a passing grade in the course, suspension from the University, and expulsion from the University.

15. Procedures For Appealing Academic Evaluations

1. In the first instance, all appeals of a grade must be made to the course instructor (informal consultation).
2. If the student is not satisfied with the decision of the course instructor, a written appeal must be sent to the Undergraduate Chair of the Department of Management and Organizational Studies.
3. If the response of the Undergraduate Chair is considered unsatisfactory to the student, they may then appeal to the Dean of the Faculty in which the course of program was taken.
4. Only after receiving a final decision from the Dean may a student appeal to the Senate Review Board Academic. A Guide to Appeals is available from the Office of the Ombudsperson.

16. Support Services

16.1 Support Services

The Registrar's office provides you with information on services, courses, student finances, resources, latest news, as well as Student Central's hours of operation at <http://www.registrar.uwo.ca>

Student Support Services (***including the services provided by the USC listed here***) can be reached at: <http://westernusc.ca/services/>

Academic Support & Engagement can be reached at: <http://academicsupport.uwo.ca>

Students who are in emotional/mental distress should refer to Health and Wellness: <https://www.uwo.ca/health/> for a complete list of options about how to obtain help.

16.2 Academic Concerns

If you are in academic difficulty, it is strongly recommended that you see your academic counsellor.