



## Fall/Winter 2021 Course Syllabus

### **MOS 3305F Section - 200 HUMAN FACTORS IN AVIATION**

Course Mode: Blended (\*)

Instructor: Dr. Jonathan Histon

Office: Will be announced in class  
Office Hours: Will be announced in class  
Email: [jhiston@uwo.ca](mailto:jhiston@uwo.ca)

#### **1. Course Information:**

(\*) This course is listed as a Blended course. Per the university calendar ([https://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=6&SelectedCalendar=Live&ArchiveID=#SubHeading\\_159](https://www.westerncalendar.uwo.ca/PolicyPages.cfm?Command=showCategory&PolicyCategoryID=6&SelectedCalendar=Live&ArchiveID=#SubHeading_159))

Blended courses have both face-to-face and online instruction, as well as on-campus exams. These course offerings are clearly identified by designated section numbers in the undergraduate academic calendar and lecture timetable. In the identified blended courses, at least 30% of student learning integral to the course occurs in the online interactive learning environment. For example, in a half (0.5) course at the undergraduate level, at least 8 of the required 24 contact hours will occur online.

For this course, instruction in the first  $\frac{3}{4}$  of the term will be via synchronous Zoom lectures. The final  $\frac{1}{4}$  of the term is scheduled to be via face-to-face in-class instruction. Efforts will be made, but cannot be guaranteed, to support a Zoom option during the in-class instruction for those students preferring to remain online.

##### **1.1 Class Location and Time:**

Online Lectures:

Fridays, September 10- November 12, 9:30 am – 12:30 pm

Face-to-Face Lectures:

Fridays, November 19 – December 3, 9:30 am – 12:30 pm

UCC-63

##### **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. Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 519-661-2147 for any specific question regarding an accommodation.

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.

<https://indigenous.uwo.ca/initiatives/docs/indigenous-land-acknowledgment.pdf>

### 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 COURSES required.

**Students not in BMOS are permitted to enroll in up to 1.0 MOS courses**, per the Academic Timetable.

## 2. Course Materials

Lee, J. et al., Designing for People: An Introduction To Human Factors Engineering, Createspace

Casey, S. (2006) The Atomic Chef and other true tales of design, technology, and human error. Santa Barbara CA: Aegean Publishing Company.

Additional readings posted on OWL

Course Website: Instructional and reference material will be posted, or linked, on the course website. You can log onto the course website by visiting [webct.uwo.ca](http://webct.uwo.ca) with a valid student number and password.

### 3. Course Objectives and Format

The DAN Department of Management and Organizational Studies as a whole draws 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

This course is designed for those students who have a keen interest in aviation human factors. The course focus is on the role engineering psychology research plays in the assessment of human performance in simple and complex cognitive tasks, and the design of information displays and controls that support those tasks. Through readings, written assignments, and class discussions, students will explore the relationships between various components of human information processing and the impact those relationships have on the performance of aviation and everyday cognitive-based tasks. By the end of the course, the students should have a good understanding of the basic theories, principles, and research that contribute to the field of cognitive ergonomics.

#### 3.2 Course format

Lecture, Case Studies, Discussions through synchronous lecture period. Attendance is expected.

### 4. Evaluation

**I. Interactivity and Assignments (25%):** A crucial element of this course is the sharing of ideas and opinions. Since each of us brings a unique background of experiences, much can be learned from class debate and discussion. Your interactivity grade will depend on involvement in on-line and in-class discussions / activities, short assignments, written questioning of student presentations, and random in-class quizzes.

*Important Information Re: Absences:* All absences will impact your interactivity grade. As a rule of thumb, you can expect each absence to subtract 10% of your interactivity grade (roughly 2% of your grade in the course). For medical absences, refer to the policy on accommodation for medical illness (<https://studentservices.uwo.ca/secure/index.cfm>). If you have a valid excuse for an absence you must inform the instructor before the intended date. It is the instructor's discretion whether or not to excuse an absence.

*Course readings:* It is expected that all students will have completed their assigned course readings before attending each lecture. This is important as it provides an enhanced understanding of the course material and students will be prepared to ask questions in class.

**II. Human Factors Researcher Profile (20%):** The 'Human Factors Researcher' profile assignment is intended to be done online through OWL with a significant portion completed in the early part of the term. Students will be required to pick a Human Factors researcher of interest to them (from any aspect of aviation) and create a profile. More details provided in-class.

**III. Expert Panel (15%):** Each week, a group will have a chance to analyze a case/report and lead a discussion on the case/report for the class. You will work in small groups to complete this assignment at various times during the term. The goal of the assignment is to offer an opportunity to practice making a business presentation as well as to become highly familiar with a particular case/report. Additional details will be provided in class.

*Course assignments and late policy:* Assignments are due at the assigned time, which may be at the beginning of the class period. Students who turn in their assignment after deadline will be subject to a minimum 15% late penalty. Additional late penalties will be incurred for each 24 hour period that the

assignment is late, as specified in each assignment description. Unless arrangements are made at least 72 hours prior to a due date, there will be no exceptions to this policy. Students are expected to arrange their time so they are robust to the known challenges associated with completing assignments (power outages, network difficulties, etc...)

**IV. Final Exam (40%):** A comprehensive final examination will be given during the final exam period. The final exam will cover all information in the course, including readings, lectures, videos, examples, guest speakers etc. therefore, it is crucial that you take good notes throughout the term. The exam format may include multiple choice or equivalent, fill-in-the-blanks, short answer, and/or essay questions and \*may require submission of hand-written answers using electronic means (e.g. pictures of papers you've written on). All submissions and/or exams may be subject to similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

The exam is expected to be scheduled for 3 hours, and are expected to be a "only course textbooks available for reference" variety of an open **book examination. Dictionaries are NOT allowed into the examinations.**

**Electronic devices of any kind (including cell phones, smart watches and calculators) beyond the computer used for proctoring/exam delivery (if online becomes necessary) are NOT permitted at exams.**

At the discretion of the instructor, a passing mark in the course requires:

- a passing mark on the final exam (IV)
- AND passing marks on 2 of the 3 individual components (I, II, IV)

independent of your score given by the above grade composition

Students are responsible for material covered in the lectures as well as the assigned chapters/sections in the text.

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 in 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 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.

## 5. Lecture and Examination Schedule

"See Schedule on OWL".

## 6. Student Responsibilities

Students should familiarize themselves with Western University Senate Regulations, please see: [http://www.uwo.ca/univsec/academic\\_policies/index.html](http://www.uwo.ca/univsec/academic_policies/index.html).

Material covered in lectures will not always be the same as material covered in the textbook. These two sources should be viewed as complimentary and not redundant. As such, students who want to do well in 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.

## 6.1 Respect

Please act respectfully towards the classroom, the Professor 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 Professor. 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 the instructor.

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

## 6.2 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 professor.

## 6.3 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 my written consent.

# 7. Exam Policies

**A final exam is scheduled for this course. At this time, it is expected to be an in-person exam and students must be prepared to attend the exam in person. The following policies will apply in-person or (only if necessary) in the case of an on-line exam:**

- Have student identification ready.
- Nothing is to be on/at one's desk during an exam, except your computer (only if on-line becomes necessary) and any approved materials.
- If online becomes necessary:
  - No other browsers or programs may be open while an exam is in progress.
  - Students may be required to use ProctorTrack or other proctoring software.
- Nothing is to be on/at one's desk during an exam except a pen/pencil, an eraser, and the individual's student card and any materials previously approved by the instructor as part of the expected open-book format
- Do not wear baseball caps to exams
- Do not bring music players, cell phones, beepers, or other electronic devices to exams

# 8. E-mail Policies

The following policies apply to all emails between students and the Professor. Please respect the fact that the Professor 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".

## 8.1 UWO.CA Email Addresses Only

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

## 8.2 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 Professor teaches different courses and sections and cannot properly respond to questions if he does not know which course or section you are enrolled in.

## 8.3 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

## 8.4 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

## 9. Attendance

It is expected that students will attend all synchronous lectures. The professor will not provide access to the lecture after it has been presented. Students are encouraged to obtain missed lecture notes from a fellow student.

If you have any concerns, contact Dr. Histon as soon as possible – we are in this together and I will work with you to find a way to fairly evaluate your performance and support your learning.

### 9.1 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.

### 9.2 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 the alternatives. At your request, they can also keep your instructors informed about your difficulties.

## 10. 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.

## 11. 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.

## 12. University Policy Regarding Illness

### 12.1 Illness

For details on the Academic Consideration for Student Absences (including accommodation, illness and self-reported absences (SRAs)), go to:

[https://www.uwo.ca/univsec/pdf/academic\\_policies/appeals/accommodation\\_illness.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_illness.pdf)

The current Illness Policy is available here (subject to change):

[https://dan.uwo.ca/undergraduate/course\\_information/IllnessPolicy.pdf](https://dan.uwo.ca/undergraduate/course_information/IllnessPolicy.pdf)

### 12.2 Make Up Examinations

The student must write a make-up exam if the regularly 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 set by the instructor, who will communicate the date to the student.

If a student is unable to meet the scheduled make-up as agreed, 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.

## 13. University Policy on Cheating and Academic Misconduct

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.

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](mailto: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 a 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.

## 14. 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: Student Affairs of the Department of Management and Organizational Studies.
3. If the response of the Undergraduate Chair is considered unsatisfactory to the student, he/she 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.

## 15. Support Services

### 15.1 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/your-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.

### 15.2 Academic Concerns.

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