

COURSE OUTLINE IDES 3306A • SPECIAL STUDIES • Winter (2024)

Instructor: Gerry Kanter

GerardoKanter@CUNET.CARLETON.CA

Location: **In-Person (SA 624)**

Office Hours: TBA

Teaching Assistant: Kimia Tajmirriahi

KimiaTajmirriahi@cmail.carleton.ca

Office Hours: TBA

Course Time and Location:

Course locations are no longer displayed on the public class schedule and are subject to change. For the latest information please refer to Carleton Central under Student Services – Registration – Student Timetable.

Course Description

Special Industrial Design Studies deal with specific projects, which may differ from year to year depending on the availability of specialists in a particular field or study opportunities as they present themselves.

Prerequisite(s): IDES 2302 and Third or Fourth Year standing or permission of the School of Industrial Design.

Lectures, tutorials, laboratory and studio three hours a week or equivalent.

This Course

Provides industrial design students with a working knowledge and concepts needed to design and develop digital prototypes and simulated environments. Topics include digital assets design & management, virtual environment creation, & extended reality principles. Labs and projects are oriented

towards building a foundation in software skills and group work is aimed at learning how to collaborate to create digital simulations.

Learning Outcomes

By the end of this course, students will be able to:

1. Understand principles and concepts related to building digital prototypes and virtual simulations.
2. Learn software platforms used to create and manage digital assets and environments.
3. Understand how to integrate narratives, digital assets, and multimedia to create digital experiences.
4. Create systems simulations using VR and AR tools.
5. Demonstrate awareness of advanced digital prototyping modeling techniques
6. Learn techniques to render and animate digital assets and environments.
7. Demonstrate awareness of multimedia compositing and editing.
8. Work as a team to develop a cohesive digital experience or simulation.

Course Deliverables

These are the deliverables for this course. Please see 'Appendix A Course Schedule' for more detailed information.

Type here to list course deliverables and the weighting of these deliverables (e.g. Projects, Assignments, and Exams).

Student Access to Quiz, Test and Exam Papers

Examinations are for evaluation purposes only and will not be returned to the student.

Required Materials

Materials required for the course are listed below. You may be asked by your instructor to refer to Brightspace for a more comprehensive list of required materials.

TBD

Computer Requirements

Please refer to the computer requirements on the School of Industrial Design Website. You may be asked by your instructor to refer to Brightspace for other information or requirements related to computer work.

<http://www.id.carleton.ca/undergraduate/about-the-bid-program/computer-requirements>

Individual/Group Work

Courses may include individual and group work. It is important in collaborative work that students clearly demonstrate their individual contributions.

Review/Presentation Attendance

Attendance at scheduled SID Reviews/Presentations is mandatory. These are equivalent to exams when indicated in the course outline. Failure to attend the Review/Presentation without reasonable cause will result in a grade of F. Students arriving late for the Review/Presentation or not remaining for the complete session without approval from the instructor, will be addressed on a case-by-case basis at the discretion of the instructor.

If you are not able to attend a Review/Presentation, foresee arriving late, or need to leave before it is complete, please email your instructor in advance explaining the reason for the situation. It is important that you provide a reasonable rationale for your absence, late arrival, or early departure. In the event of an illness or death in the family, you will be required to sign a form verifying your claim and this form is available through the SID administration office.

Late Submission of Lecture & Studio Deliverables

Students who do not hand in deliverables on time will have their earned grade reduced by **10%** per day up to a maximum of 3 days.

Participation and Professionalism

Active participation and professional conduct (e.g. class discussion, consultations with instructors, work ethic, etc.) are important in lecture and studio courses and may be formally evaluated by a grade.

Professionalism also includes Carleton's Policy on Academic Integrity described in more detail below with links to content that you are required to review.

Academic Integrity

Carleton's Policy on Academic Integrity is available at: <https://carleton.ca/registrar/academic-integrity/> and covers the following topics:

Plagiarism (e.g. submitting work in whole or in part by someone else, failing to acknowledge sources through the use of proper citations when using another's work).

Test and Exam Rules (e.g. attempting to read another student's exam paper, speaking to another student even if the subject matter is irrelevant to the text, using material not authorized by the examiner).

Other Violations (e.g. improper access to confidential information, disruption in classroom activities, misrepresentation of facts for any academic purpose).

This policy governs the academic behavior of students. In industrial design, ideas, and concepts come from a multitude of sources and may be modified and utilized in the design and development process. The student should reference such sources appropriately and it is strongly advised that you read Carleton's Policy on Academic Integrity prior to conducting any work at the University.

USE OF ARTIFICIAL INTELLIGENCE (AI) TECHNOLOGIES

To effectively address the incorporation of AI technologies, specifically generative AI tools, into courses, we have instituted the following guidelines.

1. Academic Integrity Standards: In the absence of explicit permission from the instructor within a given course, the use of generative AI tools to create content, (e.g., text, code, images, summaries, videos, etc.), is deemed a breach of academic integrity standards.
2. Instructor's Discretion: Instructors have the authority to grant permission for the use of generative AI tools, (e.g., ChatGPT and similar tools), based on alignment with the course's educational objectives and learning outcomes. Assignment and examination guidelines will be written to explicitly reflect this granted permission.
3. Clear Instructions: Should instructors choose to permit the use of generative AI tools, an assessment guideline will provide students with clear and detailed direction, including;
 - i. Identification of specific generative AI tools that are acceptable for use.
 - ii. Clarity on the approved applications of these tools.

These measures aim to create a balanced and transparent educational environment, ensuring both academic integrity and the responsible integration of AI technologies into the learning experience.

Requests for Academic Accommodation

You may require special arrangements to meet your academic obligations during the term. For an accommodation request for any of the below topics, refer to this link - <https://students.carleton.ca/course-outline/> and open the needed section.

Topics:

- *Pregnancy Obligations*
- *Religious/Spiritual Obligation*
- *Academic Accommodations for Students with Disabilities*
- *Survivors of Sexual Violence*
- *Accommodations for Student Activities*
- *Academic Considerations for Medical and Other Extenuating Circumstances*
- *Scheduling and Examination Support*

Statement on Student Mental Health

As a university student, you may experience a range of mental health challenges that significantly impact your academic success and overall well-being. If you need help, please speak to someone. There are numerous resources available both on- and off-campus to support you, refer to this link - <https://wellness.carleton.ca/> and open the needed section.

Topics:

- *Counselling*
- *Resource Guide*
 - *Thriving on Campus*
 - *Everyday Stress*
 - *Mild Mental Health Concerns*
 - *Moderate Mental Health Concerns*

- *Complex Mental Health Concerns*
- *Umbrella Project*

Student Responsibility

The student is responsible for knowing the content of this course outline; the schedule of classes, assignments, and/or Reviews; and the material that was covered when absent. The studio is a professional environment and students should be working during the scheduled hours.

Unless otherwise arranged, the class will meet during scheduled class hours. Please note that attendance is important since issues and questions may be raised in class, and announcements made, along with information disseminated through Brightspace. As external professionals are often involved in our work, scheduling changes for guest lectures, presentations, and Reviews may occur at short notice, requiring students to stay informed.

Changes to the Course Outline

The course outline may be subject to change in the event of extenuating circumstances.

Appendix A - Course Schedule

Labs (X6) Students will be required to complete a set of lab assignments to demonstrate proficiency in the software and concepts discussed in class.

Take Home Exam This is a take-home exam where students will work collaboratively in a team to design a digital prototype project applying skills and concepts from class. Each team member will then submit a report outlining their individual contribution to the project.

Week	Date	Lab Topics	Labs & Projects	Description	Due Date
Week 1	Jan 8	Course Introduction	Lab 1	Experiential Analysis	
Week 2	Jan 15	Experiential Design	Lab 2	Virtual Objects	Lab 1 Due
Week 3	Jan 22	Narrative Design			
Week 4	Feb 29	Technology Review	Lab 3	Virtual Spaces	Lab 2 Due
Week 5	Feb 5	Creativity & Learning			
Week 6	Feb 12	Case study: Exhibit & Retail Spaces	Lab 4	Photogrammetry	Lab3 Due
Week 7	Feb 19	Winter Break			
Week 8	Feb 26	AR/VR Environments	Lab 5	Compositing	Lab 4 Due
Week 9	Mar 4	Case Study: World Building & VFX			
Week 10	Mar 11	Virtual Simulation	Lab 6	System Simulation	Lab 5 Due
Week 11	Mar 18	Case Study: Museums & Theme Parks			
Week 12	Mar 25	Assets & Digital Rights			Lab 6 Due
Week 13	April 1	Guest Speakers			
Week 14	April 8	OPEN (3) Last day of classes		Optional Class	
Week 16	April 25	No class		Take Home Examination Due	