CS 405+805 – Computer Graphics
2025 Winter

Territorial acknowledgement: The University of Regina is situated on the territories of the nêhiyawak, Anihšināpēk, Dakota, Lakota, and Nakoda, and the homeland of the Métis/Michif Nation. The Regina campus is on Treaty 4 lands, and Saskatoon classes are on Treaty 6 lands.

Course Instructor: Dr. Daryl Hepting
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Office: CW 308.22
Office phone: (306) 585-5210

Lectures: The class will be delivered in-person Tuesdays and Thursdays, 13:00-14:15 in CL 127, January 7 until April 10 inclusive.

Website: **https://urcourses.uregina.ca/course/view.php?id=35280**

Office hours: Mondays and Wednesdays 13:00 – 14:30. If these times don't fit your schedule, please email me (daryl.hepting@uregina.ca) to set up an appointment.

CS-405 Calendar Description:

Advanced topics in computer graphics, including special modelling techniques for natural phenomenon, advanced illumination models, and rendering algorithms

CS-805 Calendar Description:

Geometric and other advanced modelling techniques; image rendering and synthesis techniques; interactive graphics; issues in computer animation

Textbook: Physically Based Rendering: From Theory to Implementation, 4th Edition by Matt Pharr, Wenzel Jakob, and Greg Humphreys, 2023.
https://pbrt.org/ • https://pbr-book.org/ •
https://github.com/mmp/pbrt-v4/

Additional material to be posted and made available on UR Courses.

Grading

Quizzes before meetings	10%
Participation	10%
Assignments	30%
Midterm exam	15%
Final exam	35% *you must pass the final to pass the course
Research Credit (CS-405)	2% (bonus) *may not be available, only for CS-405 students

Exam modality
The midterm and final exams will be in-person, written exams.

Lecture syllabus
Please find details on UR Courses. We will focus on the use of the software to create images that explore concepts in the textbook, Chapters 1-13 (tentatively).

Late assignments/missed exam policy: Late assignments will be penalized by a percentage of the assigned grade. If the midterm test is missed, extra weight will be placed on the final. If you miss the final exam, you will receive an NP.

Attendance policy: Attendance at lectures is expected. Students can record their own attendance in UR Courses.

Academic integrity: Academic integrity requires students be honest. Assignments and exams are to help students learn; grades show how fully this goal is attained. Thus, all work and grades should result from a student's own understanding and effort. Acts of academic misconduct violate academic integrity, and are considered serious offences by the University. Examples include, but are not limited to, cheating on tests or exams, plagiarizing, copying from others, and submitting the work of others as your own. Instances of academic misconduct will be reported to the Associate Dean in your faculty. Any use of generative AI in the completion of coursework should be cited appropriately, including the identification of any tools that were used, how the tools were employed, and how the AI-generated content was integrated into the submitted coursework.

Accommodations: Students in this course who may have need for specialized accommodations, should contact the Centre for Student Accessibility (Riddell Centre 229, 585-4631), and must discuss their accommodation letter with their instructor before any accommodations will be granted.