

GAME 220 : ENVIRONMENTAL MODELLING

Room B110, Section 501 (T/Th 10:30 - 11:45), CRN 53536

Spring 2020

Instructor: Ian Burch

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Office and Hours: A123 M/W 8:30 - 9:00, T/Th 9:00 - 10:00

STEM Center M/W 10:15 - 11:30 & 2:45 - 4:00

Course Goals:

This course focuses on environmental modelling in games. Students start by building modular tilesets & kits, then expanding with advanced rendering, lighting, and texturing techniques. The course is mainly project based, with an emphasis on rapid production and making efficient models for games.

Materials:

- USB Drive
- Internet Access
- OneDrive / Dropbox / Google Drive
- Access to Blender, 3DSMax, or Maya
- Access to Unreal Engine 4
- Notebook

Grade Breakdown:

Unit Projects	55%
Final Project	25%
Homework	10%
Participation & Attendance	10%

Letter grades will be given as follows, with + or - given for the highest and lowest 3% in each range, respectively. Incomplete (I) grades will not be assigned without documented, extenuating, circumstances.

90% - 100%	A
80% - 89%	B
70% - 79%	C
60% - 69%	D
0% - 59%	F

Tentative Schedule:

Weeks 1-3 : Tilesets

- Concept Art
- 2D Tilesets : Marching Squares & The Blob
- How many tiles do we need?
- Concept, graybox, build, polish
- *Project : Sidescroller tileset & Example*

Weeks 4-7 : Assets

- Reusable level assets
- 3D Tilesets & Grid-based Kits
- Minimum viable product
- *Project : Castle Kit & Example*

Weeks 8-11 : Natural Landscapes

- Can we use kits for natural environments?
- Kitbashing
- Baking normals
- *Project : Alien Cave*

Week 12-16 : Setpieces

- Rendering techniques
- Lighting design & cues
- *Final Project*

Late Work:

Homework past the due date will not be accepted without an emailed or written request prior to the deadline.

Expectations:

Students are expected to conduct themselves in a professional and collegial manner and bring appropriate materials (USB drive, notebook) each class. Please refrain from

using cell phones during class unless approved in advance by the instructor. Absences may be excused only with a documented reason, preferably given in advance. Students with more than 4 absences may be dropped from the course

Disability Statement:

In accordance with University Policy 2310 and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. It is imperative that you take the initiative to bring such needs to the instructor's attention, as I am not legally permitted to inquire. Students who may require assistance in emergency evacuations should contact the instructor as to the most appropriate procedures to follow. Contact Accessibility Resource Center at 277-3506 or arc.unm.edu for additional information.

If you need an accommodation based on how course requirements interact with the impact of a disability, you should contact me to arrange an appointment as soon as possible. At the appointment, we can discuss the course format and requirements, anticipate the need for adjustments and explore potential accommodations. I rely on the Disability Services Office for assistance in developing strategies and verifying accommodation needs. If you have not previously contacted them I encourage you to do so.

Academic Integrity:

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or otherwise fails to meet the standards. Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course.

Academic dishonesty includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

Credit-hour Statement:

This is a three credit-hour course. Class meets for two 75-minute sessions of direct instruction for fifteen weeks during the Spring 2020 semester. Students are expected to complete a *minimum* of six hours of out-of-class work (or homework, study, assignment completion, and class preparation) each week.

Title IX :

In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered “responsible employees” by the Department of Education (see pg 15 -

<http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf>). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu).

For more information on the campus policy regarding sexual misconduct, see:

<https://policy.unm.edu/university-policies/2000/2740.html>

Citizenship and/or Immigration Status: All students are welcome in this class regardless of citizenship, residency, or immigration status. Your professor will respect your privacy if you choose to disclose your status. As for all students in the class, family emergency-related absences are normally excused with reasonable notice to the professor, as noted in the attendance guidelines above. UNM as an institution has made a core commitment to the success of all our students, including members of our undocumented community. The Administration’s welcome is found on our website:

<http://undocumented.unm.edu/>.