

LA 7061
Advanced Topics Studio
Serious gaming

for JEAN LAFITTE

Brendan Harmon
baharmon@lsu.edu

Spring 2018. Design 309.
Monday, Wednesday, & Friday
1:30am–5:30am.



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Course description

In this studio you will design and develop serious games that explore the challenges of coastal change for the town of Jean Lafitte in Jefferson Parish, Louisiana. These games will use Tangible Landscape – a tangible interface for GIS – to model, simulate, and visualize alternative future scenarios. The games will address the impact of coastal change – of storm surge, flooding, erosion, and land-loss – on Jean Lafitte. The games will explore how methods for defense or adaptation such as levee construction, elevated buildings, floating buildings, and bioretention wetlands perform in simulated storms. You will run a serious gaming workshop for the community in Jean Lafitte and another for the LSU College of Art and Design.

Course schedule

1 Introduction	6 Storyboarding II	11 Game design III
2 Terrain modeling	7 Python I	12 Booklet
3 Digital fabrication	8 Python II	13 Rehearsal
4 Mapping	9 Game design I	14 Workshop I
5 Storyboarding I	10 Game design II	15 Workshop II

Projects

As groups of 5 you will design and develop a serious game using Tangible Landscape that explores coastal change in the town of Jean Lafitte.

Models Each group will make a hollow CNC-milled terrain model of the town in high density foam. These models will be used to cast sand models. Each group will also 3D print the town's buildings.

Game Each group will design and develop a game using Tangible Landscape. Their game will explore a set of scenarios for coastal change, defense, and adaptation.

Posters Each group will design and print posters for the serious gaming workshops. The posters should include maps and imagery of Jean Lafitte, maps and visualizations of coastal change scenarios for the town, and introduce their game.

Booklet Each group will prepare a booklet for the serious gaming workshops that describes the challenges of coastal change and explains the rules of the game. The booklets should include a survey for participants to complete.

Workshops All of the groups will present their games at a community workshop in Jean Lafitte and another workshop at the LSU College of Design. In the workshop participants will play the games and develop their own design solutions.

Grading

Models 20% **Game** 20% **Posters** 20% **Booklet** 20% **Workshops** 20%

Readings

Prominski, Martin, Antje Stokman, Susanne Zeller, Daniel Stimberg, and Hinnerk Voermane. 2017. *River. Space. Design*. 2nd ed. Birkhäuser. https://www.academia.edu/2369330/River._Space._Design.

Petrasova, Anna, Brendan Harmon, Vaclav Petras, and Helena Mitasova. 2015. *Tangible Modeling with Open Source GIS*. Springer International Publishing. doi:10.1007/978-3-319-25775-4. https://www.researchgate.net/publication/291973077_Tangible_Modeling_with_Open_Source_GIS.

Software

GRASS GIS | <https://grass.osgeo.org/>

Blender | <https://www.blender.org/>

Rhinoceros | <https://www.rhino3d.com/>

RhinoTerrain | <http://www.rhinoterrain.com/>

RhinoCAM | <https://mecsoft.com/rhinocam-software/>

ArcGIS | <http://desktop.arcgis.com/en/>



Figure 1: Tangible Landscape | <http://tangible-landscape.github.io/>

Policies

Time Commitment Expectations LSU's general policy states that for each credit hour, you (the student) should plan to spend at least two hours working on course related activities outside of class. Since this course is for six credit hours, you should expect to spend a minimum of twelve hours outside of class each week working on assignments for this course. For more information see: <http://catalog.lsu.edu/content.php?catoid=12&navoid=822>.

LSU student code of conduct The LSU student code of conduct explains student rights, excused absences, and what is expected of student behavior. Students are expected to understand this code: <http://students.lsu.edu/saa/students/code>.

Disability Code The University is committed to making reasonable efforts to assist individuals with disabilities in their efforts to avail themselves of services and programs offered by the University. To this end, Louisiana State University will provide reasonable accommodations for persons with documented qualifying disabilities. If you have a disability and feel you need accommodations in this course, you must present a letter to me from Disability Services in 115 Johnston Hall, indicating the existence of a disability and the suggested accommodations.

Academic Integrity According to section 10.1 of the LSU Code of Student Conduct, "A student may be charged with Academic Misconduct" for a variety of offenses, including the following: unauthorized copying, collusion, or collaboration; "falsifying" data or citations; "assisting someone in the commission or attempted commission of an offense"; and plagiarism, which is defined in section 10.1.H as a "lack of appropriate citation, or the unacknowledged inclusion of someone else's words, structure, ideas, or data; failure to identify a source, or the submission of essentially the same work for two assignments without permission of the instructor(s)."

Plagiarism and Citation Method Plagiarism is the "lack of appropriate citation, or the unacknowledged inclusion of someone else's words, structure, ideas, or data; failure to identify a source, or the submission of essentially the same work for two assignments without permission of the instructor(s)" (Sec. 10.1.H of the LSU Code of Student Conduct). As a student at LSU, it is your responsibility to refrain from plagiarizing the academic property of another and to utilize appropriate citation method for all coursework. In this class, it is recommended that you use Chicago Style author-date citations. Ignorance of the citation method is not an excuse for academic misconduct.