

IDH 3931: Exploring 3D with Building, Modeling & Printing
Section: 052C (1 credit)
Class: Thursdays Period 3, Marston Science Library L308

Instructor: Dr. Sara Gonzalez
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Office Hours: By appointment

Please note this is a tentative syllabus and is subject to revision at any time. The most current version will always be available on the course website and students will be notified when any changes are made.

Course Description: Hands-on experience with 3D modeling, scanning, and printing is essential for students in a variety of disciplines, including engineering, arts, and medicine. This 1-credit class is designed to provide a hands-on learning experience for students to explore 3D technologies. Students will, in a team, build the MADE3D Jellybox 3D printer kit, a printer that is designed to be easily assembled using zip ties and well-labeled components. Once their 3D printer is complete, the teams will use it to print models they create using Tinkercad, Autodesk's free web-based modeling software, and by scanning existing objects using the library's Structure 3D scanners.

Required Textbook: None

Course Schedule:

Week 1: Introduction, Divide into groups
Weeks 2-12: Build 3D printer (detailed schedule TBD)
Week 13-14: Cura & testing printer
Week 14-15: Introduction to 3D modeling using Tinkercad and Structure Scanners

Assignments & Evaluation:

Attendance (80%): Because the main objective of the course is to build the 3D printer, attendance is mandatory. Each student will be granted 1 excused absence but any additional absences will need to be excused in advance by the instructor. See here for UF's general attendance policy:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Reflective Essay (20%, due on April 25th at midnight in Canvas): Submit a 300+ word essay on the potential and current use for 3D printing and modeling in your area of interest. You may discuss uses already in that field or ones that you

anticipate in the future. Consider 3D technology beyond the FFF-style you see in class as well.

Submit as a Word document in the Canvas class site. The essay should be proofread carefully before submission. Papers that have an excessive amount of errors will be automatically downgraded by 10%. Late papers will be accepted up to **May 2nd** with a penalty of 10% per day.

Numerical Grades

90-100 = A

87-89 = B+

80-86 = B

77-79 = C+

70-76 = C

67-69 = D+

60-66 = D

<60 = F

Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Academic Honor Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<http://www.dso.ufl.edu/sccr/process/student-conduct-honorcode/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor in this class.

UF Grading Policy:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Campus Resources

- **Health and Wellness U Matter, We Care:** If you or a friend is in distress, please contact umatter@ufl.edu or 352 392- 1575 so that a team member can reach out to the student.

- **Counseling and Wellness Center:**
<http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.
- **Academic Resources E-learning technical support**, 352-392-4357 (select option 2) or e-mail to Learningsupport@ufl.edu.
<https://lss.at.ufl.edu/help.shtml>.
- **Career Resource Center**, Reitz Union, 392-1601. Career assistance and counseling. <http://www.crc.ufl.edu/>
- **Library Support**, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.
- **Teaching Center**, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <http://teachingcenter.ufl.edu/>
- **Writing Studio**, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. <http://writing.ufl.edu/writing-studio/>
- **Student Complaints Campus:**
https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf