

EED 210 - Multi-Media Design**Instructor:**

Mon & Wed 2:30 – 5:15

Locations:

TA:

Email:

Course Description:

EED 210 is an introductory course for computerized design and fabrication. The content of the class is organized to improve the student's conceptual, technical and visual design skill through the use of three dimensioning modeling and computer assisted manufacturing (CAM) software.

EED 210 is a lab based class that requires group and individual work. Students are expected work on projects in class, in supplemental EED labs, and outside of class.

The students will be challenged to design, plan, and build a variety of projects throughout the semester.

- ◆ Using Autodesk Inventor software, the students will generate in detail project models, drawings, parts diagrams, bill of materials, component list, etc., etc, et al. for all class projects.
- ◆ Students will use excel or other similar program to generate production schedule, budgets, and other documents.
- ◆ Students will maintain a personal journal detailing and documenting all work in and outside of class.

Learning Outcomes:

- The student will be able to demonstrate a functional knowledge of 3D modeling and CAM software.
- The student will be able to design and plan the construction of a basic entertainment apparatus.
- The student will be able to generate a detailed list of all materials and provide a cost/time estimate for an entertainment apparatus.
- **THE STUDENT WILL APPLY KNOWLEDGE OF AND DEMONSTRATE SAFE WORKING PRACTICES WHEN WORKING WITH AUTOMATED MACHINERY.**

Required Text:

There is not a required text for EED 210. Students will be provided with links to useful and relevant online resources throughout the semester.

Required Tools and Materials:

6" Digital or 6" Dial caliper (Decimal Inch Accurate to .001")

One graph paper notebook

The class will consist of approximately 2-3 hours per week of lectures and studio time (SEB 2231A). The lectures will cover the theory developed for entertainment systems and project design. Studio time will allow students to design, build, and test projects.

Details on each of the projects will be provided when they are assigned. Upon completion of each of the projects, the work will be reviewed in group critique sessions. The members of the class are expected to take an active role in these sessions.

Each student is expected to maintain a project notebook. The notebook is to contain notes, drawings, and general thoughts on the design and progress of each project. The notebook should be viewed by the student as an aid in the design process. The project notebook (or journal) is subject to periodic review by the instructor. Keep it current!

Cell phones are to be "turned off and remain off" for the duration of the class period. No food or drink other than water in sealed containers allowed in the classroom.

Instruction will be given for the safe and proper operation of tools, machine components, and electronic devices to be used during this class. NO ONE will be allowed to use the equipment without having been instructed and tested on the safe operating procedures. Students will be allowed access to the classroom and equipment during class and at such times when the studio is staffed and open for general use.

Class will begin on time and students are expected to be in the classroom, prepared to begin at the designated time.

210 Lesson Calendar:

Aug 29 Introductions and Syllabus, Introduction to Inventor, The Decimal Inch
31 Project # 1 Dies

Sep 5 **Labor Day Recess (NO CLASS!)**

7 Introduction to 3D printing

12 Project #2 Measurement and Modeling, 3D to 2D,

14 Lab Day

19 Project #3 Assemblies and Downloadable Parts, **Project #1 Due**

21 Intro to CNC (Mills, Plasma, and Water Jet), creating DXF's, G-code

26 Drawing Standards for Types of Fabrication: Robots –vs- Shop Monkeys

28 Lab Day

Oct	3	Project #4 Machinist Drawings, Project #2 Due
	5	Lab Day
	10	Using the Design Accelerator: Project #5, Project #3 Due
	12	Lab Day
	17	Making Movies :Project #6
	19	Lab Day
	24	Final Project: Designing a Small Machine, Project #4 Due
	26	Lab Day
	31	Nevada Day Recess (NO CLASS!)
Nov	2	Lab Day, Project #5 Due
	7	Lab Day
	9	Lab Day
	14	Midway Check In: Project #6A Due - Linear Actuator Movie Presentation and Critique
	16	Lab Day
	21	Lab Day
	23	Lab Day
	28	Lab Day
	30	Lab Day
Dec	5	Lab Day
	7	Lab Day

Final Exam Dec 14 at 3:10 PM until 5:10 PM Project #6B Functioning Linear Actuator Due - All work must be submitted by the end of Final Exam Period

Grading Policy

Details on each of the projects will be provided when they are assigned. A grading rubric, specific for each project, will be presented and explained to the class every time a new project is assigned. Every project and its corresponding grading rubric will be posted to Webcampus for the class to access.

Assignment/Activity	Points	Percent of Final Grade
Class Participation	100	10%
Project Presentations (7 times)	140	14%
Project #1	100	10%
Project #2	100	10%
Project #3	60	6%
Project #4	100	10%
Project #5	100	10%
Project #6A	100	10%
Project #6B	200	20%
Totals	1000	100%

Letter grades will be assigned based on the percentage of total points earned for the course. Plus and minus grades will be given in this class according to the following scale:

97-100%	A
94-96%	A
90-93%	A-
87-89%	B+
84-86%	B
80-83%	B-
77-79%	C+
74-76%	C
70-73%	C-
67-69%	D+
64-66%	D
60-63%	D-
59% and below	F

Late Work

Full credit will not be given for late assignments unless you have a documented medical emergency or other legitimate excuse. If you do experience a personal emergency that hinders your ability to do the work in this class, please notify the instructor as soon as possible. Late projects will lose a full letter grade for every day they are late.

Attendance and Participation

Class will begin on time - punctuality is imperative. An attendance sheet will be handed out every class for the students to sign. If a student cannot attend class they should notify the instructor via email.

During critique sessions, students are expected to be courteous and attentive to the other presenters. Students will not be allowed to work on their projects while another group is presenting. Students should participate in critique sessions with thoughtful questions and recommendations for project improvements.

Library Resources

Students may consult with a librarian on research needs. For this class, the subject librarian is Sue Wainscott. (https://www.library.unlv.edu/contact/librarians_by_subject). UNLV Libraries provides resources to support students' access to information. Discovery, access, and use of information are vital skills for academic work and for successful post-college life. Access library resources and ask questions at <https://www.library.unlv.edu>.

UNLV Policies:

Academic Misconduct—Academic integrity is a legitimate concern for every member of the campus community; all share in upholding the fundamental values of honesty, trust, respect, fairness, responsibility and professionalism. By choosing to join the UNLV community, students accept the expectations of the Student Academic Misconduct Policy and are encouraged when faced with choices to always take the ethical path. Students enrolling in UNLV assume the obligation to conduct themselves in a manner compatible with UNLV's function as an educational institution.

An example of academic misconduct is plagiarism. Plagiarism is using the words or ideas of another, from the Internet or any source, without proper citation of the sources. See the *Student Academic Misconduct Policy* (approved December 9, 2005) located at: <https://www.unlv.edu/studentconduct/student-conduct>.

Copyright—The University requires all members of the University Community to familiarize themselves **with** and to follow copyright and fair use requirements. **You are individually and solely responsible for violations of copyright and fair use laws. The university will neither protect nor defend you nor assume any responsibility for employee or student violations of fair use laws.** Violations of copyright laws could subject you to federal and state civil penalties and criminal liability, as well as disciplinary action under University policies. Additional information can be found at: <http://www.unlv.edu/provost/copyright>.

Disability Resource Center (DRC)—The UNLV Disability Resource Center (SSC-A 143, <http://drc.unlv.edu/>, 702-895-0866) provides resources for students with disabilities. If you feel that you have a disability, please make an appointment with a Disabilities Specialist at the DRC to discuss what options may be available to you. If you are registered with the UNLV Disability Resource Center, bring your Academic Accommodation Plan from the DRC to the instructor during office hours so that you may work together to develop strategies for implementing the accommodations to meet both your needs and the requirements of the course. Any information you provide is private and will be treated as such. To maintain the confidentiality of your request, please do not approach the instructor in front of others to discuss your accommodation needs.

Religious Holidays Policy—Any student missing class quizzes, examinations, or any other class or lab work because of observance of religious holidays shall be given an opportunity during that semester to make up missed work. The make-up will apply to the religious holiday absence only. It shall be the responsibility of the student to notify the instructor within the first 14 calendar days of the course for fall and spring courses (excepting modular courses), or within the first 7 calendar days of the course for summer and modular courses, of his or her intention to participate in religious holidays which do not fall on state holidays or periods of class recess. For additional information, please visit: <http://catalog.unlv.edu/content.php?catoid=6&navoid=531>.

Transparency in Learning and Teaching—The University encourages application of the transparency method of constructing assignments for student success. Please see these two links

for further information:

<https://www.unlv.edu/provost/teachingandlearning>

<https://www.unlv.edu/provost/transparency>

Incomplete Grades—The grade of I—Incomplete—can be granted when a student has satisfactorily completed three-fourths of course work for that semester/session but for reason(s) beyond the student’s control, and acceptable to the instructor, cannot complete the last part of the course, and the instructor believes that the student can finish the course without repeating it. The incomplete work must be made up before the end of the following regular semester for undergraduate courses. Graduate students receiving “I” grades in 500-, 600-, or 700-level courses have up to one calendar year to complete the work, at the discretion of the instructor. If course requirements are not completed within the time indicated, a grade of F will be recorded and the GPA will be adjusted accordingly. Students who are fulfilling an Incomplete do not register for the course but make individual arrangements with the instructor who assigned the I grade.

Tutoring and Coaching—The Academic Success Center (ASC) provides tutoring, academic success coaching and other academic assistance for all UNLV undergraduate students. For information regarding tutoring subjects, tutoring times, and other ASC programs and services, visit <http://www.unlv.edu/asc> or call [702-895-3177](tel:702-895-3177). The ASC building is located across from the Student Services Complex (SSC). Academic success coaching is located on the second floor of the SSC (ASC Coaching Spot). Drop-in tutoring is located on the second floor of the Lied Library and College of Engineering TEB second floor.

UNLV Writing Center—One-on-one or small group assistance with writing is available free of charge to UNLV students at the Writing Center, located in CDC-3-301. Although walk-in consultations are sometimes available, students with appointments will receive priority assistance. Appointments may be made in person or by calling 702-895-3908. The student’s Rebel ID Card, a copy of the assignment (if possible), and two copies of any writing to be reviewed are requested for the consultation. More information can be found at: <http://writingcenter.unlv.edu/>.

Rebelmail—By policy, faculty and staff should e-mail students’ Rebelmail accounts only. Rebelmail is UNLV’s official e-mail system for students. It is one of the primary ways students receive official university communication such as information about deadlines, major campus events, and announcements. All UNLV students receive a Rebelmail account after they have been admitted to the university. Students’ e-mail prefixes are listed on class rosters. The suffix is always @unlv.nevada.edu. **Emailing within WebCampus is acceptable.**

Final Examinations—The University requires that final exams given at the end of a course occur at the time and on the day specified in the final exam schedule. See the schedule at: <http://www.unlv.edu/registrar/calendars>.