

MSE 101OL ACCESS Program

Introduction to Engineering

Fall 2018

Schools: Monroe, Oak Park

Instructors: Professor Anthony Magee

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Assignment Submission via Canvas <https://canvas.csun.edu>

Office Hours: PENDING

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Office Hours: By Appointment

Department: Manufacturing Systems & Engineering Management Department

Department Office: JD 4510

Department Phone: (818) 677-2167

Catalog Description:

Co requisite: MSE 101L

Introduction to the engineering profession and academic programs. Orientation to the University, the College and its departments. Development of study, communication, problem solving, design, analytical and computing skills. Introduction to the internet, word processing, spread sheet, computer-aided design and presentation software. Design project development and team experience. One hour lecture and three hours lab per week.

Course Resources:

Online Resources

- Fall 2018 Schedule of Classes (Online)

Required Textbooks

- Engineering Ethics, 4th edition, C. Fledderman, Prentice Hall, 2008

Optional Textbook

- Studying Engineering, 4th edition, Raymond B. Landis, Discovery Press, 2007
- Introduction to Excel, 4th edition, D. Kuncicky, Prentice Hall, 2010

Course Schedule:

Lecture Location: Online (<https://canvas.csun.edu> and <http://www.ecs.csun.edu/mse101access-magee>)

Lecture: Online (Weekly Lectures & Assignments) Every Tuesday

Lab: Arranged Locally at High School

Basis of Grading:

45% Design Project & Team Report

55% Homework Assignment

Grading Scale:

Plus or Minus grading will be used

90-100 A- to A

80-89 B- to B+

70-79 C- to C+

60-69 D- to D+

<60 F

Schedule Session Topic:

| <u>Week</u> | <u>Lecture Schedule</u> | <u>Lab Schedule</u> |
|-------------|--------------------------------------|---|
| 1 | Introduction to the Course | Welcome to the MSE 101 Lab - Outline Semester, VSL Access |
| 2 | Introduction to Engineering | The Engineering Profession |
| 3 | Introduction to Excel Part 1 | The Design Process + Reading |
| 4 | Introduction to Excel VB Programming | Ship the Chip Group Work (Design Process Outline + Initial Sketches) |
| 5 | AutoDesk AutoCad Part 1 | Ship the Chip Group Work (Build/Test/Redesign) |
| 6 | AutoDesk AutoCad Part 2 | Ship the Chip Group Present Design |
| 7 | Java Music Programming | Working in Teams |
| 8 | Java Music Programming | Try Engineering Project 2 (Design Process Outline + Initial Sketches) |
| 9 | Digital Logic | Try Engineering Project 2 (Build/Test/Redesign) |
| 10 | Solidworks Tutorial 1 | Try Engineering 2 Presentation |
| 11 | Solidworks Tutorial 2 | Academic Success Factors |
| 12 | Design Considerations | Try Engineering Project 3 (Design Process Outline + Initial Sketches) |
| 13 | Solidworks Tutorial 3 | Try Engineering Project 3 (Build/Test/Redesign) |
| 14 | Solidworks Tutorial 4 | Try Engineering 3 Presentation |
| 15 | Project Management | Dimensions Units and Conversion |
| 16 | | Engineering Ethics |

**Subject to Change

Course Objectives:

1. This course will increase your ability to use computers to solve engineering problems and to communicate the results in reports and memos.
2. This course will increase your knowledge of the engineering design process.
3. This course will increase your ability to write reports on engineering endeavors and to give oral presentations on the results of your work.
4. This course will give you the ability to plan your academic career in engineering before and after you graduate from CSUN
5. This course will increase your ability to work on inner-disciplinary teams in working design solutions.
6. This course will provide the ability to choose an engineering academic discipline to follow at CSUN and to plan your career as an engineer.
7. This course will increase your ability to carry out a successful academic career in engineering before and after you graduate.
8. This course will provide you with an understanding of professional and ethical responsibility as an engineer.

Formats for Work:

1. Homework assignments must be submitted online via Canvas <https://canvas.csun.edu>
2. Submitted homework must be identified by student's full name
3. Each student must turn in his/her own homework. All submissions are to be individual efforts with the exception of the Project reports.
4. The format for the project design report is available online. This format is used for the design project in the laboratory. Written reports will be evaluated for compliance to the format requirements, the writing quality, timeliness, and content.

Homework Requirements:

Homework problems must be submitted online at <https://canvas.csun.edu>. If you are having issues with Canvas, assignments can be emailed to mse101access.magee@gmail.com.

Problems must be numbered, and homework documents must be identified by student name and school (for example; Doe, John ACME High School).

Each student must turn in his/her own homework. All submissions are to be individual efforts with the exception of the Project reports.

The format for the project design report is available on line. This format is used for the design project in the laboratory. Written reports will be evaluated for compliance to the format requirements, the writing quality, timeliness, and content.

Standard Operating Procedures:

1. Class members are expected to maintain personal and professional standards consistent with the Code of Ethics of the National Society of Professional Engineers the Preamble and Fundamental Canons of which are as follows:

Code of Ethics of Engineers Accreditation Board for Engineering and Technology

The Fundamental Principles

Engineers uphold and advance the integrity, honor and dignity of the engineering profession by:

- § using their knowledge and skill for the enhancement of human welfare:
- § being honest and impartial and serving with fidelity the public, their employers and clients:
- § striving to increase the competence and prestige of the engineering profession; and
- § supporting the professional technical societies of their disciplines.

The Fundamental Canons

- a. Engineers shall hold paramount the safety, health and welfare of the public in the performance of their professional duties.
 - b. Engineers shall perform services only in the areas of their competence.
 - c. Engineers shall issue public statements only in an objective and truthful manner.
 - d. Engineers shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest.
 - e. Engineers shall build their professional reputation on the merit of their services and shall not compete unfairly with others.
 - f. Engineers shall act in such a manner as to uphold and enhance the honor, integrity and dignity of the profession.
 - g. Engineers shall continue their professional development throughout their careers and shall provide opportunities for the professional development of those engineers under their supervision.
2. Class members are expected to submit original work except in joint projects in which the activities are cooperative and collaborative.
 3. Class members are expected to attend class and laboratory except when circumstances are outside the member's control.
 4. Class members are responsible for material in the reading assignments, class presentations, discussions, and homework examples.
 5. Homework sets, laboratory reports, and project reports are due at the time requested
 6. Class members are expected to be cooperative with other class members and to collaborate when appropriate with colleagues.
 7. Class members are all expected to participate in the oral presentations.
 8. Class members are expected to comply with University regulation governing intellectual property, origin of work, and honesty. Failure to maintain these standards will result in student disciplinary action and a grade of F in the course and laboratory.