ENG 116-501 Mondays & Wednesdays 9:00-9:50 (VAAS 124)

Instructor: Jesus D Ortega Office: C24	Office Hours: M: 10:00 - 11:30 am (or by appointment)	Email: jdortega4@unm.edu

COURSE DESCRIPTION: The purpose of Introduction to Engineering, ENG 116, is to help students decide whether they would like to pursue an engineering degree through a description of the engineering profession, orientation to engineering education and introduction to the engineering process and to foster a camaraderie amongst students with similar interests.

STUDENT LEARNING OUTCOMES:
With the successful completion of Engineering 116, a student will:

- Understand various engineering fields and the paths to pursue the same.
- Obtain basic skills, effective learning, and life techniques essential for successful pursuit of an engineering degree.
- Have an awareness of the basic mathematics, physics concepts and calculations essential for successful pursuit of an engineering degree.
- Have gained experience giving multiple technical presentations.
- Have gained experience with group dynamics through participation in hands-on exercises.

EXPECTATIONS: Students are expected to conduct themselves in a polite, courteous, professional and collegial manner. Cell phones must be set on silent. Please step into the hall if you need to take a call during class.

ATTENDANCE POLICY: Every absence counts negatively towards your grade. If a student misses 2 classes in the first three weeks or 3 consecutive class periods, the student may be dropped from the class. The student bears full responsibility for the material and procedural information covered in class.

COURSE MATERIALS: Paper, pencil, scientific calculator (no graphing), and 3-ring binder or folder, laptop (optional) (These items may be shared with other classes.)

GRADING SCALE: (+ and – also available)

A = 90 - 100 % B = 80 - 89 % C = 70 -79 % D = 60 - 69 % F < 59 %	CR Credit 72 - 100 % NC No Credit < 72 %

ATTENDANCE: 10%
CLASS PARTICIPATION: 10 %
ASSIGNMENTS: 20 %
INDIVIDUAL PRESENTATION: 20 %
FINAL PROJECT AND PRESENTATION: 40 %
Notes:

- Grading is subject to change based on activities throughout the semester
- Late assignments will be accepted with a penalty on your grade
- Lowest assignment grade will be dropped
- Plagiarism and cheating will not be tolerated in class

UNM's Policy on Academic Honesty: 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, including dismissal, against any student who is found responsible for academic dishonesty. Any student who has been judged to have engaged in academic dishonesty in coursework 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; and misrepresenting academic or professional qualifications within or outside the University.

ELECTRONIC DEVICE USAGE: While electronics such as laptops, tablets, and cellphones are very useful, please abstain from using them during class, unless directed by your instructor for class related activities only. Please have your devices in silent mode. If you need to take a call, feel free to step out of the classroom.

SUPPORT SERVICES: The Valencia Campus Library provides a quiet atmosphere for study and is an excellent resource for supplementary materials. Audiotapes and videotapes are available for student use through the library. The Learning Commons and STEM Center offer math & science tutoring at no cost to the student. The Writing Center can provide free help with all written assignments. (For Writing Center appointments email gillikin@unm.edu or call 925-8513.) Students who miss tutoring appointments may be denied future appointments.

UNM EMAIL/BLACKBOARD LEARN ACCESS: Beginning Fall 2015 semester, all UNM-Valencia students will need a UNM NetID which can be created by going to: http://it.unm.edu/accounts/. UNM NetID will give you access to the computer labs on campus, blackboard learn and UNM Email.

COMPUTER LAB RESPONSIBILITY: Please be advised that use of computer labs on UNM properties is governed by "Policy 2500: Acceptable Computer Use" which can be found at http://policy.unm.edu/universitypolicies/2000/2500.html. Food and drink are also prohibited in any computer lab on campus. Anyone violating these policies is subject to possible suspension and loss of computer lab privileges.

DISABILITY STATEMENT: If you have a documented disability, the Equal Access Services office will provide me with a letter outlining your accommodations. I will then discuss the available accommodations with you to determine the best learning environment. If you feel that you need accommodations, but have not documented your disability, please contact Jeanne Lujan, the coordinator for Equal Access Services at 925-8910 or jmlujan@unm.edu.

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/universitypolicies/2000/2740.html

CLASS SCHEDULE:

Week	Monday	Wednesday
August 20	Syllabus and Class Project	Engineering and Leadership
August 27	Engineering Units	Measurements Lab
September 3	No Class **[HW1 due]**	Intro to Excel (Pres 1)
September 10	Data and Graphs in Excel	Intro to MATLAB (Pres 2)
September 17	Data in MATLAB **[HW2 due]**	Programming in MATLAB (Pres 3)
September 24	No Class	No Class
October 1	Intro to Circuits **[HW3 due]**	Breadboard Prototyping (Pres 4)
October 8	Intro to Arduino	Arduino Programming (Pres 5)
October 15	Intro to Dynamics **[HW4 Due]**	Arduino Programming (Pres 6)
October 22	Power Hungry	Archimedes Death Ray (Pres 7)
October 29	Intro to Mech. Drawing **[HW5 due]**	Power of Triangles (Pres 8)
November 5	CAD Lab	CAD Lab (Pres 9)
November 12	In-Class Activity **[HW6 due]**	Intro to 3D Printing (Pres 10)
November 19	No Class	No Class

November 26	Research, Research! **[HW 7 Due]**	Project Day (Pres 11)
December 3	Resume Building	Project Day (Pres 12)
December 10	Good Luck with your finals!	

*Individual presentations: The students will create a 15-minute presentation/discussion on a topic related to engineering. Powerpoints or visuals are encouraged, but not required. Be prepared to answer questions. Every student must participate in the discussion.
** All homework assignments must be emailed before the deadline by 5:00 pm.

IMPORTANT DATES with respect to this class:

- Individual Presentations: TBD
- Labor Day: September 3rd, 2018
- Last date to drop without a "W": September 7th, 2018
- Fall Break: October 11th - 12th, 2018
- Final Projects and Presentations due: TBD
- There will be NO Final Exam!