

MERRIMACK COLLEGE
Department of Civil and Mechanical Engineering
GEN 1001L: Introduction to Engineering Lab
Laboratory Syllabus, Fall 2014

I. Laboratory Information

Instructors:

Professor:

Name: James Kaklamanos, Ph.D. (“Professor Kaklamanos” or “Dr. K.”)

Email: KaklamanosJ@merrimack.edu

Phone: (978) 837-3401

Office hours: Tues. 11 a.m.–12 p.m., Wed. 2:30–3:30 p.m., Thurs. 11 a.m.–12 p.m.; Mendel 123.

Teaching assistant (TA):

Name: Ms. Kayla Newton

Email: NewtonK@merrimack.edu

Office hours:

- Ms. Kayla Newton: Wed. 9:30 a.m. – 12:30 p.m.; Mendel 128
- Mr. Kyle Elmy (TA for lab sections C and D): Fri. 9:30 a.m. – 12:00 p.m.; Mendel 128.

Lab details:

Course name: GEN 1001L: Introduction to Engineering Lab

Course meeting times and location: Lab section A: Wed., 8:00–9:30 a.m., Mendel 128

Lab section B: Wed., 1:00–2:30 p.m., Mendel 128

Course website: <<https://blackboard.merrimack.edu>>

Purpose: The purpose of GEN 1001L is to provide you with hands-on experience with common engineering software, and to gain practice with the engineering concepts learned in lecture.

Notes:

- Please refer to your course syllabus for GEN 1001 for more information about the lecture and project sections of GEN 1001: Introduction to Engineering.
- Lab sections A and B are designed for students interested in civil or mechanical engineering.

II. Policies

Attendance and participation: Attendance and participation in all labs are required. The material covered during these lab periods will generally not be found in any other source. Unexcused lab absences will detrimentally affect your lab grade as well as your professionalism grade for the course.

Professionalism: Professional behavior is expected in all aspects of this course, as professionalism is an essential characteristic of your future as a practicing engineer. You are expected to:

- Arrive to lab and appointments on time so as not to disrupt other students or the instructors.
- Turn your cell phone off before the beginning of the session. To foster active participation in lab, we do not permit the usage of cell phones or personal electronics during lab sessions.
- Remain engaged throughout the entire session; disruptive, disrespectful, or argumentative behavior will not be tolerated.
- Treat your classmates and instructors with common courtesy and respect in all communication – verbal and electronic.
- Demonstrate due diligence and thoroughness in all submittals as if you were submitting to your supervisor.
- Be prepared to present your results to peers and clients or respond to questions about your solutions.

Lab honor code:

- Canon 6 of the National Society for Professional Engineers (NSPE) Code of Ethics states that “Engineers shall conduct themselves honorably, responsibly, ethically, and lawfully so as to enhance the honor, reputation, and usefulness of the profession.” This means that acts of academic dishonesty are unprofessional, unacceptable, and will not be tolerated.
- It is unacceptable to copy the work of another student; such behavior will be grounds for academic disciplinary action, including, but not limited to: zero credit for the assignment in question, a failing grade for the course, suspension from the College, or dismissal from the College. It is also unacceptable to look at prior students’ work.
- Collaboration is allowed on lab assignments, but all assignments must be written up independently by each student (unless the assignment is specifically announced as a team assignment). If you consult with any of your classmates or anyone else, you must indicate their names in your submission.
- Students must carefully review the Merrimack College Academic Integrity Code (AIC) distributed in class and available at <http://www.merrimack.edu/about/offices_services/office-of-the-provost/academic-integrity-code.php>.

Americans with Disabilities (ADA) Policy: Please refer to Merrimack’s Disability services website at <<https://www.merrimack.edu/campuslife/disability-services.php>>.

General comments: We look forward to working with you throughout the semester, and encourage you to ask questions, both in lab and outside lab. Also, please inform the instructors of any personal circumstances or issues that we should know about. When in doubt, it is always better to keep us informed throughout the semester rather than waiting until the end.

III. Assessment

Grading: Your laboratory grade is worth 25% of your final course grade for GEN 1001. Each laboratory assignment will be worth a specified number of points, as indicated on each week’s assignment sheet (ranging from 10–50 points). On each assignment sheet is a detailed rubric displaying the number of points various aspects of the lab assignment will be worth. In addition to the points for each laboratory assignment, you will earn 10 points for each laboratory you attend (you will earn only 5 points if you attend lab but arrive late) and 5 points for each video watched in advance of the lab period (you will earn only 2.5 points if you watch the video after the start of the lab period). The points for lab

attendance and videos watched will be added to the points earned for your laboratory assignments in calculating your laboratory grade.

Preparation: Prior to each lab, you will be expected to watch a set of instructional YouTube videos posted on Blackboard. You must access these videos individually through your own Blackboard account in order to receive credit for watching the video, and each video must be watched in its entirety. The required videos will be listed on the assignment sheets for each laboratory. As mentioned above, you will earn 5 points for each video watched in advance of the lab period. These instructional videos will help you be successful in lab, and the points earned will contribute a significant part of your laboratory grade.

Submission of assignments: Lab assignments are due electronically (via Blackboard) no later than one week after originally assigned; i.e. no later than the beginning of the following week's lab session (8:00 a.m. for Lab Section A; 1:00 p.m. for Lab Section B). More details are provided in the lab schedule at the end of this syllabus. Late submissions will not be accepted unless accompanied by a doctor's excuse or another form of official documentation of an emergency.

IV. Lab Schedule

Lab No.	Lab Title	Date	Lab Assignment Due
1	Introduction; Microsoft Word	Wed. Sept. 10	—
2	Spreadsheets: Microsoft Excel	Wed. Sept. 17	Lab 1
3	Graphic Design: Adobe Photoshop	Wed. Sept. 24	Lab 2
4	Introduction to CAD Concepts with SketchUp	Wed. Oct. 1	Lab 3
5	Getting Around in MicroStation	Wed. Oct. 8	Lab 4
6	Creating Your First Real CAD Drawing	Wed. Oct. 15	Lab 5
7	Another Real CAD Drawing	Wed. Oct. 22	Lab 6
8	Site Development in CAD	Wed. Oct. 29	Lab 7
9	3D Modeling and Printing	Wed. Nov. 5	Lab 8
10	Term Paper Presentations	Wed. Nov. 12	Lab 9, Presentation
11	Term Paper Presentations	Wed. Nov. 19	Presentation
—	Design Workshop (Windmill Project)	Wed. Dec. 3	—