

Fall 2011 Statics MEC\* K114, Section-1, CRN-30192

*Class Hours:* THUR – 5:30-8:15PM

Class Location: Room E223

*Class Textbook:* <u>Engineering Mechanics Statics</u>, 12<sup>th</sup> Edition, by R.C. Hibbler

Instructor	Mark Vesligaj
Office	QVCC E182E (Danielson Campus)
Office Hours	Thurs (8:15-9:15pm), and by appointment
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Prerequisite	MAT* K137, MAT* K186 (may be concurrent)

### Course Description:

This course is an introduction to engineering mechanics via vector approach to static forces and their resolution. Topics include: properties of force systems, free-body analysis, centroids, first and second moments of areas, beam theory, and static friction. Applications to trusses, frames, and beams included.

### Special Needs:

Any student in the class who may have special needs should feel free to contact me. I am interested in any situation which may impact your ability to be successful in this course.

### Homework:

There will be regular homework assignments for this course. However, the homework will not be collected and graded. It is up to the student to keep up with the assignments. Additionally, much of the homework we be reading assignments which will match the sequencing of lectures.

### Grading:

Your final grade in this course will be comprised of the following components:

# Quizzes & Projects:

There will be short quizzes throughout the semester. Quizzes will be administered in class or will be take home from the previous lecture. Those students arriving late will not be allowed extra time to complete the quiz. Those students missing the class will not be allowed to make-up the quiz. Additionally, there will be a real-world design project applying truss analysis and software.

### Exams:

There will be three scheduled exams throughout the semester.

### Final Exam:

There will be a cumulative final exam.

Your final grade in this course is determined by weighting the above three components in the following manner:

Quizzes & Projects	40%
Exams (3 Total)	45%
Final Exam	15%
Total	100%

### Attendance:

Attendance is required to succeed in this course. If you miss class on the day of a quiz or an exam, you will not be allowed to make it up.

# Academic Integrity Policy:

Academic integrity is essential to a useful education. Failure to act with academic integrity severely limits a person's ability to succeed in the classroom and beyond. Furthermore, academic dishonesty erodes the legitimacy of every degree awarded by the college. In this class present only you own work, clearly document the sources of the material used from others, and act at all times honestly. The college reserves its right to enforce all disciplinary actions against students who violate this vital policy.

# Chapter Readings and Topics:

- Math Review
- Chapter 1 General Principles
- Chapter 2 Force Vectors
- Chapter 3 Equilibrium of a Particle
- Chapter 4 Force System Resultants
- Chapter 5 Equilibrium of a Rigid Body
- Chapter 6 Structural Analysis
- Chapter 7 Internal Forces
- Chapter 8 Friction
- Chapter 9 Center of Gravity and Centroid
- Chapter 10 Moments of Inertia