

**STATICS; ENGR 211 Fall 2020**

**Class Time:** Online

**Instructor:** David Kidd, email: kidd@linnbenton.edu

**Office Hours:** By appointment.

I will take questions on Zoom Tuesday, Friday 4:00 – 4:30 and 6:30 – 7:00

**Course Description and Outcomes:** This class covers the basic mechanics of non-accelerating objects. Upon successfully completing the course, a student should be able to

1. Analyze three dimensional force and moment systems
2. Find resultant forces and moments and find force and moment reactions
3. Analyze trusses, frames, and machines
4. Find centroids and Moments of Inertia
5. Analyze shear and moment in beams

**Prerequisite:** Math 252, Calculus II

**Texts:** Statics Notes, Edition 1.31 LBCC  
Engineering Mechanics, Statics, Hibbeler

**Grading:**

Midterm 1	25%	A 90% - 100%	D 60% - 69%
Midterm 2	25%	B 80% - 89%	F < 60%
Final Exam	25%	C 70% - 79%	
Homework	25%		

To make up an exam, a student must contact the instructor before the exam and schedule a make-up exam within one week of returning. Incompletes will be handled on a case by case basis, it is the responsibility of the student to discuss the situation with the instructor.

Generally, late homework will not be accepted. In the event of illness or other unavoidable issues a student can contact me before the due date to request an extension. Any excused late homework must have a clear note on it stating the reason for the late submission and the date.

This course prepares students for a professional work environment. Students are expected to act in a professional manner, attend class regularly, and participate in class activities.

**Class Schedule**

<b>Week</b>	<b>Subject</b>
1	Introduction, Force Vectors
2	3D Vectors, Projections, Point Equilibrium
3	Moment
4	Couples, Distributed Loads, Resultants, Free Body Diagrams
5	Equilibrium
6	Equilibrium
7	Trusses
8	Frames and Machines, Centroids
9	Moment of Inertia
10	Shear and Moment, Friction

Final Exam: Wednesday 3:00 – 5:00

## **WHAT DO EMPLOYERS EXPECT OF ME AS AN EMPLOYEE?**

### **They expect me to:**

1. Come to work, everyday ... on time.
2. Make smart decisions.
3. Follow directions.
4. Concentrate on my work and care about the quality of my work.
5. Read, write, and calculate well.
6. Recognize problems and find solutions.
7. Finish a job when I am supposed to without sacrificing quality.
8. Be honest and dependable.
9. Take the lead and work hard.
10. Communicate well and get along with other people ... especially customers.
11. Dress properly and practice good grooming.
12. Be cooperative.
13. Have a positive attitude.

From the Pittsburgh Connection Business/Education/Community

### **Academic Honesty:**

Please work together on homework; but to receive credit, do your own work. Any cheating on homework or tests will result in a zero being assigned for the grade. Students who aid other students who cheat will be also be held responsible.

**Disability Services and Emergency Planning:** Students who may need accommodation due to documented disabilities, who have medical information which the instructor should know, or who need special arrangements in an emergency, should speak with the instructor the first week of class. If you have not accessed services and think you may need them, please contact please contact the Center for Accessibility Resources, <https://www.linnbenton.edu/student-services/accessibility/index.php>

**Anti Discrimination Statement:** LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws.

**Student Rights and Responsibilities:** Please review your rights and responsibilities (<http://linnbenton.edu/go/studentrights> ). If you believe a student is violating your rights, ask to be treated with respect. If that does not cure the situation, report to Student Conduct and Retention Manager Jill Childress, [childrj@linnbenton.edu](mailto:childrj@linnbenton.edu). If you believe a faculty member or LBCC employee is violating your rights, please report to the Director of Human Resources, Scott Rolen, [rolens@linnbenton.edu](mailto:rolens@linnbenton.edu).

**Roadrunner Resource Center:** The Roadrunner Resource Center can help you with barriers and disruptions that can come up and keep you from staying in school. This includes assistance with childcare, food, emergency housing, healthcare, taxes, utilities, textbooks and supplies, transportation, and other issues. <https://www.linnbenton.edu/student-services/other-resources/roadrunner-resource-center.php>