Statics – Fall 2020 – OSU/SWJTU

FACULTY
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TEACHING ASSISTANTS
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EMAIL
All course correspondence should filter through the faculty emails above. Correspondence is encouraged and you are asked to put "SWJTU-Statics" in your subject line. An instructor or TA will respond no later than two business days.

PREREQUISITES
Successful completion of Physics and Calculus

TEXTBOOK
Engineering Mechanics: STATICS, 14th Ed., Hibbeler, R. C., Prentice Hall, New Jersey, 2016.

COURSE INFORMATION
Up-to-date information about the course (Videos, Syllabus, Assignments, Course Calendar, Examples, Solutions, Images for videos, and Newsfeed) may be found on our course website https://my.okstate.edu.

OFFICE HOURS
To Be Determined

EXAMS
Exams are listed in the course schedule. All examinations will be closed book and notes, with calculators and pencils only. **Cell phones and other unapproved electronics are not allowed**. Failure to abide by this policy will result in academic integrity procedures. Exams 1 through 3 will occur on the dates indicated in the syllabus. The Final Exam will be similar to the 3 hour exams in form, except that it will be comprehensive and cover topics addressed during the semester. Exams will be emailed the following week and any grade concerns must be addressed at that time. "Re-grading" of exams will not occur past one week of date emailed.

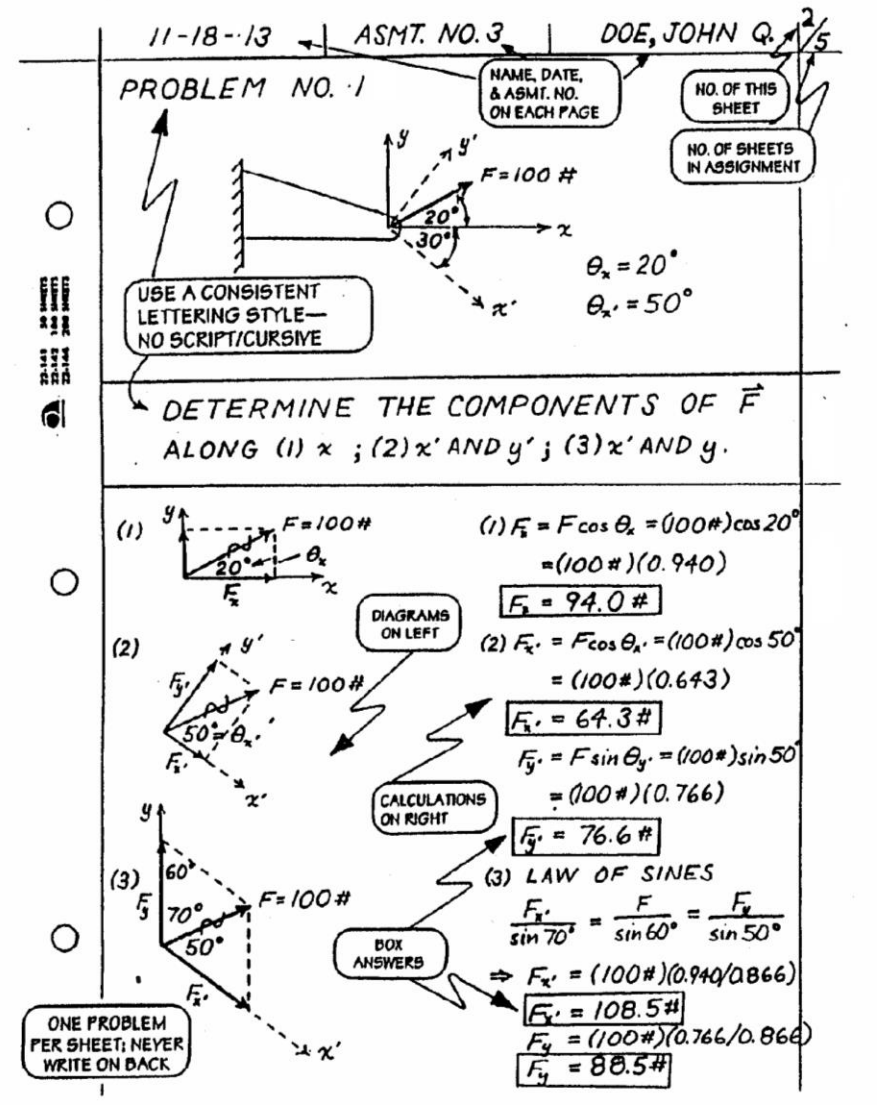
HOMEWORK
Homework in PDF form is required to be uploaded to the appropriate dropbox by **8:00 am** on Tuesdays (Beijing time) with the file name including your last name and assignment number. For example, **Ramming_HWK #1.pdf**. All homework must be worked by hand and on "engineering or grid paper". Work is to be presented on one side of the paper and there is to be only one problem per page, using the faint line side of the engineering paper to work problems. **Homework will be submitted as one pdf file to the appropriate Dropbox folder.** Late homework will not be accepted without the consent of the instructor. Penalties are given for homework that does not follow the

required format. Homework is not to be copied from a solution manual and will result in zero credit or noted as an academic integrity violation.

HOMEWORK FORMAT

Homework format steps include:

1) Write out the statement of the problem and what is required
2) Sketch the given problem (part of the statement).
3) Sketch all Free-Body Diagrams showing all dimensions & forces.
4) Write out all equations & solutions
5) The answer must be presented to completely define the problem. It is to be set apart from the calculations and underlined or boxed, with proper units given.



FINAL GRADES In calculating your final grade for the course, the following percentages will be used:

Homework	20%
Exam 1	20%
Exam 2	20%
Exam 3	20%
Final Exam	20%

A = 85% to 100%
B = 75% to 84%
C = 60% to 74%
F = 0% to 59%

COURSE OBJECTIVES

Ability to place forces into component form
Ability to draw free-body diagrams
Ability to determine support reactions for single and multi-member systems
Ability to calculate internal forces, including: axial (tension and compression), shear, and bending moment
Ability to calculate static friction: slipping, tipping, and wedges
Ability to calculate section properties: cross-sectional area, centroids, and moment of inertia

ABET STUDENT OUTCOMES

ABET student outcomes that will be assessed for this course include:
(1) an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

(7) an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

LEARNING EXERCISES

The homework problems are to develop proficiency in the analysis of various types of force systems.

EXPECTED PERFORMANCE

The student is expected to have a good working knowledge in Physics and Calculus, as well as develop the ability to analyze various types of force systems. Principles of equilibrium are important in many engineering courses in the curriculum. This course builds upon itself through the semester, thus students must not fall behind in the course.

CONDUCT

Academic Integrity will be upheld in this course, and it is the responsibility of every student behave respectfully.