
ENG35: Statics

Instructor: Boris Jeremić, Professor

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Class meeting: T, Th, 3:10pm-4:30pm, Giedt 01002

Instructor Office Hours: T, Th, noon-2:00pm; Ghausi 3147

TA Office Hours: W 1:30pm-3:00pm, Academic Surge 2212; Th 10:30am-noon, Ghausi 1007

Course WWW: <http://sokocalo.engr.ucdavis.edu/~jeremic/Classes/ENG35>

Topics to be covered:

- Force vectors
- Equilibrium of a particle
- Force system resultants
- Equilibrium of a rigid body
- Internal forces, trusses, beams, frames
- Structural analysis, trusses, beams, frames
- Friction
- Center of gravity
- Moments of Inertia

Textbook: Statics, Russell C. Hibbeler, any edition is acceptable.

Suggested readings: History of Strength of Materials, *Stephen S. Timoshenko*, McGraw–Hill, 1953.

Grading: homework 40 pts, midterm exam 20 pts, final exam 40 pts,

Homeworks: assigned weekly, through course web site.

Computers: some of the problems in this course will require programming and computer simulation. You may use any programming language you are familiar with (C, C++, Fortran, Basic, Matlab, Mathematica...). Program flowchart and a source code printouts should be submitted with solutions.

Artificial Intelligence, AI: Use of AI (chatGPT...) is encouraged, make sure information is reliable and accurate

Guidelines for homework, mid-term and final exam presentation:

- HW are due before the due date.
 - Neatness counts (!).
 - Highlight answers by boxing or underscoring, and mark with arrow on margin.
 - Show work, just giving the final answers gets no credit.
 - If the problem specifies physical units, be sure to identify them in the answers.
 - When making plots of your results use straight edge and compass.
 - Be sure to write your name and student ID number on HW pages.
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