

**SHARIF UNIVERSITY OF TECHNOLOGY  
DEPARTMENT OF CIVIL ENGINEERING**

**FALL 2014**

**STATICS**

**INSTRUCTOR:** Vahab Toufigh, Ph.D.  
2<sup>nd</sup> Floor Earthquake Engineering Research Center

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**OFFICE HOURS:** Sat, Mon: 3:00-4:00, or by appointment

**PREREQUISITE:** Concurrently enrolled in 22015

**REFERENCES:** 1- Beer, F.P., and Johnston, E.R., Vector Mechanics for Engineers Statics and Dynamics, McGraw-Hill, 1972.

2- Meriam, J.L., and Kraige, L.G., Engineering Mechanics Statics, Wiley, 2012.

**HOMEWORK:** Accepted on A4 sheets using only one side. Homework must be presented in a neat, professional manner and it must be turned in at the beginning of the class period. Late homework is not acceptable without a valid cause.

**EXAMS:** There will be two midterm exams and a comprehensive final exam. Exams dates TBA.

**GRADING:** Exam I 25%  
Exam II 25%  
Final Exam 30%  
Homework 15%  
Participation 5%

**COURSE OUTLINE:** 1- Concentrated Forces in 2D & 3D  
2- Particle Equilibrium in 2D & 3D  
3- Moment of a Force Equivalent Systems of Force  
4- Rigid Body Equilibrium in 2D & 3D  
5- Truss Analysis: Method of Joints & Method of Section  
6- Frames and Machines: Simple & Complex Systems  
7- Internal Forces: Shear and Moment Diagrams  
8- Centroids and Moment of Inertia