

MSE 110: Introduction to Materials Science

Course description: Introduction to the science and technology of metals, polymers, ceramics and composites

Number of credits: 2

Course Coordinator: S. Bose

Prerequisites by course: None

Prerequisites by topic: None

Postrequisites: None

Textbooks/other required materials: None

Course objectives: 1. To introduce students to a wide range of modern materials engineering topics through active learning projects.

Topics covered: 1. Crystalline and amorphous structure of matter
2. Defects in materials
3. Metals
4. Ceramics
5. Electronic materials
6. Polymers and composites
7. Engineering roles in solving society problems

Expected student outcomes: 1. Demonstrating, through written communication skills, information literacy and critical thinking skills within the materials science and engineering field

Class schedule: Two 50-minute lecture sessions per week, for one semester.

Laboratory schedule: None, in class projects.

Contribution to meeting the professional component: Engineering Topics

Relationship of course to program objectives: Meets:
1. School of MME MSE educational objectives: 1, 2, 3
2. School of MME MSE program outcomes: (a), (h), (j)
3. ABET EC2000, Criterion 3 program outcomes: (a), (h), (j)

Prepared by: D.P. Field

Date: June 21, 2016

POLICIES

A. **Reasonable Accommodation** (the nature of the particular course determines which one applies):

- Pullman Campus. Reasonable accommodations are available for students with a documented disability. If you have a disability and need accommodations to fully participate in this class, please either visit or call the Access Center (Washington Building 217; 509-335-3417) to schedule an appointment with an Access Advisor. All accommodations MUST be approved through the Access Center.
- WSU Online Course. Reasonable accommodations are available in online classes for students with a documented disability. All accommodations must be approved through your WSU Disability Services office. If you have a disability and need accommodations, we recommend you begin the process as soon as possible. For more information contact a Disability Specialist on your home campus: Pullman or WSU Online (<http://accesscenter.wsu.edu>), Spokane (<http://spokane.wsu.edu/students/current/studentaffairs/disability/>), Tri-Cities (<http://www.tricity.wsu.edu/disability>), Vancouver (<http://studentaffairs.vancouver.wsu.edu/student-resource-center/disability-services>).

B. Academic Integrity

WSU expects all students to behave in a manner consistent with its high standards of scholarship and conduct. Students are expected to uphold these standards both on and off campus and acknowledge the university's authority to take disciplinary action. The Standards of Conduct for Students can be found at <http://conduct.wsu.edu>.

C. WSU Safety

WSU is committed to maintaining a safe environment for its faculty, staff, and students. Safety is the responsibility of every member of the campus community and individuals should know the appropriate actions to take when an emergency arises. In support of our commitment to the safety of the campus community the University has developed a Campus Safety Plan, <http://safetyplan.wsu.edu>. It is highly recommended that you visit this web site as well as the University emergency management web site at <http://oem.wsu.edu> to become familiar with the information provided.