1. Course number and name
   EML 4930 Materials II
2. Credits and contact hours
   3 cr, 2.5 contact hours (2 hrs. 30 min. lecture)
3. Instructor's or course coordinator's name
   Instructor: Dr. Simone Peterson Hruda, Coordinator: Dr. William Oates
4. Text book, title, author, and year
   Materials Science and Engineering: An Introduction, Callister, W. D., Jr. and Rethwisch, D. G., 2013
5. Specific course information
   a. brief description of the content of the course (catalog description)
   This course is the first part of a two-part sequence integrating concepts of mechanics and principles of materials. It will provide the student with a broad based introduction to, and understanding of, the application of materials in structural design, the processing of mechanical components and the manufacture of high technology products.
   b. prerequisites or corequisites
   Prerequisites: EML 3012C and senior standing
   c. indicate whether a required, elective, or selected elective course in the program
   Selected Technical Elective course
5. Specific goals for the course
   a. *Course Outcomes*
6. Brief list of topics to be covered
   - Ceramics (structure, properties, processing, applications)
   - Polymers (str., prop., proc., & appl.)
   - Composites (str., prop., proc., & appl.)
   - Electronic Materials (str., prop., proc., & appl.)
   - Mechanical Properties
   - Electrical Properties
   - Thermal Properties
   - Magnetic Properties
   - Optical Properties
   - Corrosion
   - Environmental Issues
   - New and Novel Materials