MFGE-771  Emerging Manufacturing Materials

Course Description

Theory and application of new and emerging materials in manufacturing, principles of materials
design, properties and behavior of new and emerging materials and their enabling role in industry.

Objectives

Successful completion of the course will enable the student to:

1. Describe the evolution of materials and their enabling role in advanced technology applications
2. Define the terminology of new and emerging materials and explain the technical information
   associated with their use
3. Read, understand, critically review and synthesize contemporary research literature on
   emerging materials in technical journals and periodicals, and communicate their knowledge
   (written and oral formats)
4. Explain the principles of materials design, and describe the properties, behavior and application
   of emerging materials
5. Discuss future possibilities allowed by materials and prognosticate the course of materials
   development through need-based assessment of technological advances