Course Name: Advanced engineering mathematics

Course Number: 20014

Credit: 3

Course Content (outline):

- 1. Tensor analysis
- 2. Calculus of variations
- 3. Fourier series
- 4. Fourier transform
- 5. Partial differential equations
- 6. Complex variables

References:

- Lai, W. Michael, David Rubin, and Erhard Krempl. Introduction to continuum mechanics Butterworth-Heinemann, 2009.
- Malvern, Lawrence E. Introduction to the Mechanics of a Continuous Medium. No. Monograph. 1969.
- Kreyszig, Erwin. Advanced engineering mathematics John Wiley & Sons, 2007.
- Greenberg, Michael D. Advanced Engineering Mathematics, 2/E. Pearson Education India, 1998.