탄성체 역학(Elasticity)

2018 년 봄학기

 Instructor
 : 이 해 성

 Office
 : 35-408

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Class Hour : 11:00^{AM}-12:15^{PM} Mon., 11:00^{AM}-12:15^{PM} Wed.

조 교 : 임예슬 (35-212, 880-7349)

Text:

1. Class note by the instructor

- 2. A First course in Continuum Mechanics by Y. C. Fung, 3rd Edition
- 3. Theory of Elasticity by Timoshenko and Goodier, 3rd. Edition

Reference:

- 1. Foundations of Solid Mechanics by Y. C. Fung
- 2. Introduction to the mechanics of a continuous media by L. E. Malvern

Class Contents

- 1. Introduction of Elasticity (1)
- 2. Stress and Equilibrium (2-3)
- 3. Strain, Deformation and Compatibility (4-5)
- 4. Constitutive Equation (6)
- 5. Two-dimensional Problems Plane Stress and Plane Strain (7-8)
- 6. Plane Problems in Polar Coordinate system (9-10)
- 7. Beam Problems (11)
- 8. Torsion (12-13)
- 9. Energy Method (14-15)

Evaluation

Midterm Exam \times 2 : 40 % (April 9, May 14)

Final Exam : 30 % (June 13)

Home Work & Attendance : 30 %

Rules for Class

- 1. All grades including C, D, F are possible.
- 2. No homework will be accepted after due dates.
- 3. Absence from class by two times without reasonable excuse is equivalent to one homework.