

# Credit for Prior Learning Examination

## EGT 300 – Statics and Strength of Materials

### Course Description

EGT 300 – Statics and Strength of Materials (3 credits)

PREREQ: PHY 211 or PHY 220, MAT 119 or MAT 128

Theory and application of the mechanics of rigid bodies in equilibrium; mechanical properties of materials; stress; strain; torsion; shear force and bending moments; beam deflection; combined loading.

### Exam Details

Students will be assessed on their ability to attain the outcomes below:

1. Select and apply knowledge of statics to the design of mechanical systems
2. Select and apply techniques of statics and strength of materials to the testing and evaluation of mechanical systems
3. Select and apply knowledge and techniques of statics and strength of materials to selection of materials to solve mechanical problems
4. Conduct standard tests and measurements of statics and strength of materials
5. Calculate the forces and moments on members of engineering structures
6. Calculate the stresses and strains in members of engineering structures

Free Text on Applied Statics and Strength of Materials found at the below link:

[http://opus.ipfw.edu/cgi/viewcontent.cgi?article=1048&context=mcetid\\_facpubs](http://opus.ipfw.edu/cgi/viewcontent.cgi?article=1048&context=mcetid_facpubs)



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