EN8906 Vibration, Noise and Mechanics of Machine

Course Aim
To enable students to apply specialist skills using concepts of mechanics in machines, select appropriate transmission systems for various applications, investigate fluctuation of energy in flywheels, minimise vibration and sound control.

Short Title
EDICT

Faculty

Polytechnic Level
15

Credits
Pre-requisites
60 Credits at level 7 in BENG Tech (Mechanical)

Co-requisites
None

Anti-requisites
None

On successful completion of this course, students will be able to:
1. Demonstrate critical knowledge and understanding of velocity and acceleration for various planar mechanisms.
2. Critically analyse transmission elements to select appropriate components, such as gears, gear trains, belt drives, shafts, and bearings.
3. Design appropriate flywheels by critically analysing flywheel energy from turning moment diagrams.
4. Use evaluations of vibration parameters to minimise vibration in mechanical systems.
5. Demonstrate critical knowledge of sound measurement, sound transmission, and reverberation.

Version 2
Effective From September 1, 2016
Indicative NQF Level 8
Student Contact hrs 60
Self-directed hrs 90
Other directed hrs 0
Total learning hrs 150

NQF Sub-strand
Generic, Problem Solving and Analytical Skills
Practical Application of knowledge
Theoretical Understanding
Practical Application of knowledge
Theoretical Understanding