

**APPROVED**

## EN8154: Structural mechanics and dynamics

### Course Details

Course Code:	EN8154
Course Title:	Structural mechanics and dynamics <b>APPROVED</b>
Short Title:	SMD
Course Level::	Level 8
Valid From::	2021/2022 Sem 1
Credits::	15
Owner:	Engineering Technology
Assessment Method:	Achievement
Course Aim	To enable students to apply specialist skills using concepts of structural stress analysis to investigate dynamic response of engineering structures and check for their strength and stability, using vibration analysis.

CILO	
On Completion of this course, the learner will be able to	
#	Learning Outcome Description
1	Demonstrate critical knowledge of plane stress and plane strain transformation
2	Critically analyze bending stress for symmetrical and asymmetrical cross section to solve structural dynamic problems.
3	Critically evaluate free vibration parameters for single degree of freedom for solving structural dynamic problems.
4	Demonstrate critical knowledge of forced vibration with damping for dynamic response of structural system
5	Critically analyze and evaluate structural dynamic problems according to industrial and ethical standards and communicate the findings to peers and specialists.
Requisites	
<ul style="list-style-type: none"> <li>Pre Requisite: EN6902 and 45 credits at L7 of compulsory BEngTech Mechanical or ElectroMechanical program courses</li> </ul>	

<b>Examinations</b>
<b>Assessment Type</b> Examination (Unseen)
No Other Controlled Assessments
<b>Uncontrolled Assessments</b>
<b>Assessment Type</b> Practical Project
<b>Assessment Type</b> Simulation

Affiliated Entities			
Entity Code	Entity Title	Entity Version	Entity Type
ENT7050	Associate degree in Engineering Technology (Electromechanical)	1	Programme
ENT8050	Bachelor of Engineering Technology (Electromechanical)	2	Programme