

**GE 105 INTRODUCTION TO ENGINEERING DESIGN**  
**TimetableGuideline for Lectures and Studios (2<sup>nd</sup> Semester 1436/1437 H)**

<i>wk</i>	<i>Lecture(50mn)</i>	<i>Studio (40mn)</i>	<i>Activity(1 hour)</i>	<i>Teams' responsibility Next Studio</i>
1	<b>First Contact</b>			Forming teams of five each
2	<b>1. Course Introduction</b>	Course ground rules and guide to effective meetings	Practicing preparing agendas and meeting minutes (theme: initial topic selection)	Team formation and final projects selection (suggest more than one topic)
3	<b>2. An Over View of Engineering Design</b>	Tips for a good presentation	Evaluation of selected projects (peer review)	First presentation (selected topic for final project)
4	<b>3. The Engineering Profession</b>	Tips for writing reports(outline for GE105final report)	First oral presentation	Written proposal for final project topic (one page)
5	<b>4. Engineering functional jobs</b>	Project Planning and Literature Review	Make a Plan for Final Project + peer review of topic and plan	
6	<b>5. Need Analysis and problem definition</b>	Design cycle, cycle worksheet + need analysis key questions	Perform need analysis for each project	Written need analysis (one page) for each team
7	<b>6. Human Factors</b>	Videos (human factors) and Discussion of videos	Identify human factors applicable to each group's project	Written human factors (one page) for each team
8	<b>7. Problem Formulation</b>	Practicing on team projects		2 <sup>nd</sup> oral presentation: (formulation: need analysis, constraints, criteria, human factors) 10mn each group
9	<b>8. Creativity : Thinking Outside the box</b>	Second oral presentation (problem formulation)		Written assessment of progress of the final project (one page)
10	<b>9. Creativity in Engineering Design</b>	Creativity real-life examples	Practicing brainstorming to generate creative ideas for each project	Initial creative design of final poster (A0 hard paper)
11	<b>10. Concept generation and Design evaluation</b>	How to make posters + Generate concepts for each project and practice weights and rates		3rd presentation(10mn): problem formulation, human factors, concept generation, weights/rates
12	<b>11. Intellectual Property – Legal Factors</b>	Third oral presentation	Peer evaluation of presentation + voting for best poster design/content	
13	<b>12. Engineering Ethics</b>	Real Eng. ethics case studies + Assessment of cases		
14	<b>Course project final preparation</b>	Visit to College Of Engineering Facilities (tentative)		
15	<b>Project Presentation (Exam)</b>			
16	<b>Report and portfolio evaluation</b>			
17	<b>Final Exam.</b>			

**Grading: Final exam (40%), Classwork (15%), tutorial (10%), Project (report:10%, presentation:15%, poster:5%, logbook:5%)**