GE 105 INTRODUCTION TO ENGINEERING DESIGN
TimetableGuideline for Lectures and Studios (First Semester 1439/1440 H)

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

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