

King Saud University
Electrical Engineering Department
Guidelines of Design Group

The current plan of EE program adopts an *integrated approach* in which the student is engaged in a team that works on a specific area in electrical engineering. The areas represent modern application in the field of electrical engineering, and the team should work to provide solutions to these challenges associated with this application. The experience attained by the student during his study prepares him to excel in working within professional engineering teams after graduation.

The academic plan is prepared to be highly flexible with 38 elective credit hours to allow students to get full benefits of this this problem-solution-oriented education. Various components of the academic plan are thus integrated to enhance student's knowledge and skills to succeed in working within his design group, including:

- Elective labs to be chosen by student.
- Elective courses to be chosen by student.
- Summer training.
- Academic trips to industrial sites.
- Graduation project.
- Cooperation with industrial partners in the graduation project

General Guidelines for forming design groups are as follows:

- Students at EE department chooses a depth area from one of various specialization areas that are entitled *design groups*. The specialization areas cross the boundary of conventional specialties that exist in the department.
- A design group includes a number of students and a number of faculty member.
- In addition, each design group has typically one or more teaching assistant to help students in the group on programming issues.
- One faculty member in the group serves as an academic advisor of the students in the group.
- Students who register for the course EE 302 Simulation Lab (typically in the 7th level) are entitled to be enlisted in a design group.
- Group coordinators will contact students of EE 302 to brief them about the group. Students can arrange with the group coordinator and join the group.

- Students in EE 302 course are required to work on a course project. Students are encouraged to choose their course project on the area of the design group they choose.
- Undeclared students are distributed by department on empty slots.
- The academic advisor of each group helps the student to choose the elective courses that equip the student with adequate depth and breadth experience. This typically include:
 - 3 credit hours of elective labs to be taken by group students
 - 18 credit hours of elective courses to be taken by group students
 - 9 credit hours of elective courses to be chosen by each student.
- The department prepares a list of courses to be offered in the next academic year. Minimum of 10 students per course should be maintained.
- The elective courses focus on design aspects and they assist the student in his capstone design projects.
- The student teams for capstone design project are arranged during the 8th level of study within each design group.
- The design group specifies the list of courses and labs required to be completed by student before registering for the design project. Failure of student to meet these requirements may lead to delaying his graduation or changing his design group.
- Students register for work on their design projects during the 9th and 10th levels.

Proposal of Design Group Form

Group ID:

Design Group Title:
Group Coordinator (and Academic Advisor):
Group Faculty Members (<i>Typically from 2 -6 Members</i>):
Suggested Number of Students (<i>Typically From 6-16 students</i>):
Student Qualifications (Ex. Courses covered, grade of some courses):
Suggested Senior Design Projects to be offered in this design group: <ul style="list-style-type: none">•••

Elective Labs (3 Credit Hours) to be chosen by students in this group

Elective courses that are essential to be taken as depth courses by students in this group. (Typically 18 Credit Hours)

Other elective courses that are suggested for students in this group. (Student chooses 9 credit hours from this list)

Course Plan: Elective Course to be taken by student on each level

8th Level	9th Level	10th Level

Courses and labs that should be completed before registering in the graduation project (student will have to change his Design Group if he does not meet this requirement)

Main software tools to be used in this design group. (Students of EE 302 are encouraged to do course project of EE 302 on one of the following software tools):

Teach Assistants (TAs) or graduate students who will be associated to this group. (Typically these TAs will provide office hours to support students of the group on computer simulation using the above software tools.

Suggested companies for summer training of student

Suggested academic visits for the group. (At least one visit)

Industrial partners who provide challenges to be solved by student in his graduation project.

Notes: