Course Specifications

University: Benha University  Faculty: Benha Faculty of Engineering

Course specifications
Program(s) on which the course is given: Communications Dep.
Major or minor element of programs: Major
Department offering the program: Electrical Engineering technology Dep.
Department offering the course: Electrical Engineering technology Dep.
Academic year / Level: Fifth year
Date of specification approval: 2009

A- Basic Information
Title: Project  Code: E599
Credit Hours: N.A.  Lecture: 0
Tutorial: 0  Practical: 4  Total: 4

B- Professional Information
1 - Overall aims of course
Graduation project (GP) provides students with opportunities to apply and implement the skills gained during all other courses studied in the program toward providing a solution to a specific engineering problem. The graduation project resembles problems that will face the graduate engineer at the work place, when he/she is required to work in a team to tackle a predetermined engineering task. The graduation project provides the opportunity for students to work in groups under staff supervision. The graduation project is the last step in preparing the student for professional practice after graduation and therefore is considered an opportunity to apply and demonstrate the students' accumulation of knowledge, skills and experiences throughout their undergraduate education. All the students' education including lectures, tutorials, discussion groups, labs, seminars, field trips, and industrial training should be reflected in the graduation projects. It requires continuous work and commitment to achieve the required goals.
It is recommended that the selected project represents an actual need of the industry or the community. This reflects the message of the faculty and the university. Students are encouraged to select new topics and involve other departments and disciplines, where applicable, in their graduation projects.

2- Intended learning outcomes of course (ILOs)
a. Knowledge and understanding:
On successful completion of the module the student should:

- Practicing how to identify current engineering problems in the industry/community and how to formulate the problem in the form of "An Essential Question"
- Practicing collecting scientific, engineering and market data on a particular problem
- Practicing team work and synergy with other students and with the advisors and the program coordinator
- Practicing proper technical writing and oral presentation skills
- Establishing contacts with the industry/community
- Other Specific intended learning outcomes that depend on the particular project and program

b- Intellectual skills
By the end of this course, the student should be able to:

- Modeling the real-life problem in engineering context
- Applying the engineering knowledge and skills earned throughout the program

c- Professional and practical skills
By the end of this course, the student should be able to:

- Collect the techniques of oral and written presentations.
- Perform the project management fundamentals.

d- General and transferable skills
By the end of this course, the student should be able to:

- Work cooperatively and effectively in a group
- Present information independently
- Communicate with industry.

3- Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>No. of Hours</th>
<th>Lecture</th>
<th>Tutorial/Practical</th>
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<tbody>
<tr>
<td>Faculty members discuss their proposed projects with students</td>
<td>4</td>
<td>0</td>
<td>0/4</td>
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<tr>
<td>Deliverable</td>
<td>Content</td>
<td>Submitted on</td>
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<tr>
<td>Report # 1</td>
<td>• Essential Question and project title, problem description and importance (~ 2 pages)</td>
<td>Week 3</td>
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<td>Report # 2</td>
<td>• Preliminary research work and market analysis</td>
<td>Week 8</td>
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<td>Report # 3</td>
<td>• Proposed solution approach and/or design</td>
<td>Week 11</td>
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<td>• expected cost</td>
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<td></td>
<td>• Required material, tools and facilities</td>
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<td>• Time plan with list of deliverables</td>
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**Weighting of assessments**

- Final-term examination: 50%
- Semester work: 50%
- Total: 100%
6- List of references
   Books, lecture notes, internet, .... etc.

7- Facilities required for teaching and learning
   Lecture rooms – Experimental Labs - computers – Virtual simulation programs

Course coordinator: Assoc. Prof. Ghada Amer
Head of Department: Assoc. Prof. Ghada Amer
Date: