

**King Fahd University of Petroleum and Minerals**  
**Computer Engineering Department**

**Graduating Student Exit Survey**  
**Assessment Summary**

*Number of Students who Filled the Survey: 27*

*Overall GPA: 2.81*

*Future plans (check all that apply):*

*I intend to work in the government sector: 9.52%*

*I intend to work in the private sector: 52.38%*

*I intend to go to graduate school: 26.19*

*I intend to start my own business: 9.52*

*I intend to do other things (please specify): 2.38%*

*Would you recommend to other students to join the COE major at KFUPM?*

**YES**  *No responses*

**NO**

<p style="text-align: center;"><b>Abilities and Skills (COE Program Outcomes)</b></p>	<p style="text-align: center;"><b>Ratings</b> <i>(1= Very dissatisfied)</i> <i>(5= Very satisfied)</i></p>
1. <i>My education at KFUPM has given me the ability and confidence to apply general principles of mathematics, science, and engineering to analyze and solve computer engineering problems.</i>	<b>4.33</b>
2. <i>The quality and variety of COE design projects have been very helpful in developing my engineering design skills.</i>	<b>4.07</b>
3. <i>The training and practice I had in my ICS and COE courses at KFUPM has been very helpful to me in the areas of software design and development.</i>	<b>3.63</b>
4. <i>The teamwork experience that I had in my COE projects has taught me how to function as an effective team member and has been more productive to me than individual work.</i>	<b>3.63</b>
5. <i>My rating of the instruction and guidance I received in teamwork.</i>	<b>3.44</b>
6. <i>My education at KFUPM and my oral presentations have improved my ability to communicate my ideas effectively to my audience.</i>	<b>4.26</b>
7. <i>My education at KFUPM and the technical reports that I wrote for my course projects have improved my writing skills and my ability to communicate my ideas effectively in writing.</i>	<b>4.33</b>
8. <i>My rating for the quality of guidance and instruction I received for oral and written communication.</i>	<b>4.08</b>
9. <i>My education in the COE department at KFUPM has contributed to my understanding of the impact of computer engineering solutions in my society and in the world.</i>	<b>4.19</b>
10. <i>My education in the COE department at KFUPM has prepared me to enter graduate school and to engage in a lifelong learning process.</i>	<b>3.78</b>
11. <i>My education in the COE department at KFUPM enabled me to use software and hardware tools needed to solve computer engineering problems.</i>	<b>3.89</b>
12. <i>My education in the COE department at KFUPM enabled me to pass professional and certificate exams to improve my career opportunities.</i>	<b>3.81</b>
13. <i>The courses I have taken at KFUPM and COE have given me a good foundation for understanding the contemporary social, political, and technical issues that surround our society.</i>	<b>4</b>
14. <i>The courses and projects that I have taken at the COE department at KFUPM gave me the ability to integrate different hardware and software components of a system to come up with a solution to a practical problem or need</i>	<b>4.33</b>

**COE Program Learning Outcomes Assessment Summary:**

Based on the assessment results of course learning outcomes, it is clear that all of them are rated with a good rating with least rating being 68.8% (3.44/5). This indicates that *Team work instruction and guidance given to students needs to be improved.*

<b>COE PROGRAM EDUCATIONAL OBJECTIVES</b>	<b>Ratings</b> <i>(1= Very dissatisfied), (5= Very satisfied)</i>
<ol style="list-style-type: none"> <li>1. The COE program has provided me with adequate background to:               <ol style="list-style-type: none"> <li>a. practice my profession as a computer engineer with confidence.</li> <li>b. be globally (worldwide) competitive in my profession.</li> <li>c. make intellectual contribution to my profession</li> <li>d. improve my personal skills (e.g., teamwork, leadership,</li> </ol> </li> </ol>	<p style="text-align: center;"><b>4</b></p> <hr/> <p style="text-align: center;"><b>3.81</b></p> <hr/> <p style="text-align: center;"><b>3.85</b></p> <hr/> <p style="text-align: center;"><b>4.11</b></p>
<ol style="list-style-type: none"> <li>2. The COE program has provided me with adequate technical breadth and depth.</li> </ol>	<p style="text-align: center;"><b>3.92</b></p>
<ol style="list-style-type: none"> <li>3. The COE program has provided me with adequate opportunities to help me understand and appreciate the importance of               <ol style="list-style-type: none"> <li>a. superior work ethics in the practice of my profession.</li> <li>b. good character in the practice of my profession.</li> </ol> </li> </ol>	<p style="text-align: center;"><b>3.96</b></p> <hr/> <p style="text-align: center;"><b>3.59</b></p>
<ol style="list-style-type: none"> <li>4. The COE program has provided me with adequate ability and motivation to continuously improve my technical skills.</li> </ol>	<p style="text-align: center;"><b>4.07</b></p>
<ol style="list-style-type: none"> <li>5. The COE program has provided me with adequate training for professionally adapting myself to changes in my field.</li> </ol>	<p style="text-align: center;"><b>4</b></p>
<ol style="list-style-type: none"> <li>6. The COE program has provided me with adequate background that I can build on to continue higher studies for the MS and PhD degrees.</li> </ol>	<p style="text-align: center;"><b>3.81</b></p>

**COE Program Educational Objectives Assessment Summary:**

Based on the assessment results of COE Program education objectives, it is clear that all of them are rated with a good rating with least rating being 71.8% (3.59/5). This indicates that *students' understanding of the importance of good character in the practice of computer engineering profession needs to be improved.*

<h1>Learning Environment</h1>	<b>Ratings</b> <i>(1= Very dissatisfied)</i> <i>(5= Very satisfied)</i>
<b>A. Quality of instruction in:</b>	
1. <i>Mathematics, Physics, and Chemistry</i>	<b>3.56</b>
2. <i>Computer Engineering courses</i>	<b>3.93</b>
3. <i>Information and Computer Science courses</i>	<b>3.63</b>
4. <i>English courses</i>	<b>3.89</b>
5. <i>Islamic studies and humanities</i>	<b>3.78</b>
6. <i>Elective courses</i>	<b>3.7</b>
<b>B. Quality of Laboratories:</b>	
7. <i>Instruction provided by lab instructors</i>	<b>3.15</b>
8. <i>Experiments and lab manuals</i>	<b>3.23</b>
9. <i>Computing facilities and equipments</i>	<b>3.42</b>
<b>C. Quality of supervision or advice:</b>	
10. <i>Summer training or COOP</i>	<b>3.11</b>
11. <i>Senior Project</i>	<b>3.59</b>
12. <i>Academic planning</i>	<b>3.07</b>
13. <i>Career planning</i>	<b>2.89</b>
<b>D. Equity of treatment by:</b>	
14. <i>Academic administrators: chairman, dean, etc.</i>	<b>3.89</b>
15. <i>Faculty members</i>	<b>3.73</b>
16. <i>Teaching assistants and lab instructors</i>	<b>3.44</b>
17. <i>Secretaries and staff members</i>	<b>4</b>
<b>E. Quality of Academic Services:</b>	
18. <i>Admission process</i>	<b>3.63</b>
19. <i>Orientation program</i>	<b>3.85</b>
20. <i>Registration process</i>	<b>3.48</b>
21. <i>Email, Internet, and Networking infrastructure</i>	<b>3.89</b>
22. <i>Library</i>	<b>3.96</b>
23. <i>Bookstore</i>	<b>4.11</b>
<b>F. Quality of the facilities:</b>	
24. <i>Classrooms</i>	<b>3.96</b>
25. <i>Recreation and athletics</i>	<b>3.63</b>
26. <i>Food services</i>	<b>2.78</b>
27. <i>Student housing</i>	<b>2.63</b>
28. <i>Parking</i>	<b>2.3</b>

## **Learning Environment Assessment Summary:**

Based on the assessment results of Learning Environment, it is clear that the following need improvement:

- *Quality of instruction in Mathematics, Physics, and Chemistry*
- *Quality of Laboratories: Instruction provided by lab instructors, Experiments and lab manuals, Computing facilities and equipments*
- *Quality of supervision or advice: Summer training or COOP, Academic planning, Career planning*
- *Equity of treatment by: Teaching assistants and lab instructors*
- *Quality of Academic Services: Registration process*
- *Quality of the facilities: Food services, Student housing, Parking*

## **Finally, please comment on the following:**

### **List positive things about the COE program at KFUPM:**

- Courses, instructors, projects, network courses, team work, integration of concepts, Challenging Environment (courses + competition between students), Excellent use of Technology (WebCT + Email), program helped me discover new personal abilities, skills and creative ideas, the generality of the program that cover three combined majors (Computer Networking , Hardware, and Software), Co-op program, Elective courses, Focus on fundamentals.

### **List negative things about the COE program at KFUPM:**

- some courses need text books, some electives are not always available, some instructors have poor management for the projects (COE 400), labs need to be REVISED, texts are not chosen well 308, 360, 202, and some don't have text 444, no cooperation b/w the students, WORKING UNDER PRESSURE

and high expectations, too much focus on grades, no teamwork between students, lack of creativity in COE program, too many ICS courses, bad support for the projects and lab courses material, bad lab instructors ( most of them has almost no experience), practices is much less than theories, Some faculty members are not qualified to teach COE courses.

### **What courses were your favorite, and why?**

- Network courses, bcz it helped me to understand useful thing that i can share it with the market
- Networking courses because I am interesting in a career in Networking
- COE 444, COE 400, COE 305, COE 205
- COE 444 because it was the most course i benefited from

- COE 441, the doctor is good
- COE 305, the course was great
- COE 205, COE 200, COE 344
- Networking (444). practical and useful in the field., VLSI design (360). challenging and it is in my interest.
- The Hardware oriented courses and the digital Logic
- ICS 431, Senior Project
- COE200:Basic to get COE, COE205:I like the programming from a COE point of view, COE305:Deal with processors and etc...
- COE442: Networks, to understand the world, It's just some kind of networks
- COE: 200, 344, 308, 360, ICS: 353, 431
- COE 360: The picture became very clear for me regarding computer engineering after taking this course,
- COE 444: Networking is needed in the Saudi job market, COE 305, COE 400, ICS 431
- COE 305 ( because of the instructor), 308 ( because of the instructor), 485 (because of the instructor and i implemented the whole idea of engineering throughout this course)
- COE 205----- Assembly was new for us and interesting, COE 485----- Senior project to combine all what have been studied.
- Almost all the courses specially: COE342-344, COE305, COE405(VHDL), COE200
- All courses in networking

**What courses were your least favorite, and why?**

- No responses

**What would you suggest to improve the COE major and to make it more useful?**

- No responses

### **Students' Comments Summary:**

*It is clear from students' comments the following need improvement:*

- *Course Textbooks*
- *Labs, lab manuals and lab instruction*
- *Collaborative learning and team work*