**Course File Check List**

**Instructor: Dr. Aiman El-Maleh** **Course# ICS103-Sec#: 1** **Semester:** 083

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1. Course Assessment Report

(√) Complete ( ) Incomplete

2. Copy of “I” Grade Reports

(√) not applicable ( ) # reports available

( ) # reports missing

3. Syllabus

(√) Available ( ) Not Available

4. Quizzes

( ) not applicable

# quizzes: (4) available ( ) missing

# key solutions: (4) available ( ) missing

# best quizzes: (4) available ( ) missing

# avg. quizzes: ( ) available ( ) missing

# worst quizzes: (4) available ( ) missing

5. Homework Assignments

( ) not applicable

# hws: (3) available ( ) missing

# key solutions: (3) available ( ) missing

# best hws: (3) available ( ) missing

# avg. hws: (3) available ( ) missing

# worst hws: (3) available ( ) missing

6. Projects

(√) not applicable

# projects: ( ) available ( ) missing

# best projects: ( ) available ( ) missing

# avg. projects: ( ) available ( ) missing

# worst projects: ( ) available ( ) missing

7. Midterm & Major Exams

( ) not applicable

# exams: (2) available ( ) missing

# key solutions: (2) available ( ) missing

# best exams: (2) available ( ) missing

# avg. exams: (2) available ( ) missing

# worst exams: (2) available ( ) missing

8. Final exam

( ) not applicable

Final Exam: (√) available ( ) missing

Key solution: (√) available ( ) missing

Best final exam: (√) available ( ) missing

Avg. final exam: (√) available ( ) missing

Worst final exam:(√) available ( ) missing

9. Lecture Notes

( ) not applicable (√) available

( ) missing

10. Lab Material & Sample of Student Work

(Can be in separate files)

(√) not applicable ( ) available

( ) missing

11. Additional Handouts

(√) not applicable ( ) available

( ) missing

12. Sample of Electronic Communications (e.g. Discussions in WebCT)

(√) available ( ) missing

13. Course Website URL/WebCT

( ) not applicable (√) available

( ) missing

14. CD (√) available ( ) missing

15. Others (√) not applicable

(Please specify): ...................................

12. Comments:

Name of person filling this form: Dr. Aiman El-Maleh.

Signature and Date : Sep. 1, 2009.

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| **COURSE ASSESSMENT REPORT** |

**King Fahd University of Petroleum and Minerals**

**Information and Computer Science Department**

**Course Assessment Report**

**1. Course Information**

Course Number & Title: ICS 103: Computer Programming in C

Course Format: 2-3-3

Semester: 083

Coordinator Name: Dr. EL-SAYED EL-ALFY

Instructor Name: Dr. Aiman El-Maleh

Instructor Role:

Enrollment: 16 Registered: 13 Withdrawn: 3

Class Grade Point Average (GPA): 3.02

**2. Course Objectives**

The table below provides the faculty assessment of the actual coverage of the course objectives at the end of the semester.

|  |  |  |
| --- | --- | --- |
| S.No. | Objectives | **Coverage Percentage**  **0 – 100%** |
| 1 | To provide engineering students with basic knowledge of programming in C and problem solving | **100%** |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |

**Comments on the coverage of objectives**

Course objectives were covered as planned.

**3. Indirect Assessment**

### 3.1: Learning Outcomes Survey Results

**4. Strongly agree 3. Agree 2. Neutral 1. Disagree 0. Strongly disagree**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| # | After taking this course, I am able to: | **4** | **3** | **2** | **1** | **0** | **Average\*** |
| 1 | Understand and find the output of simple C programs that incorporate different types of variables, expressions (arithmetic and logical), selection, and iteration. | 8 | 3 | 1 |  |  | 3.58 |
| 2 | Understand and find the output of more complex C programs containing arrays and invoking (calling) functions having input and output arguments using pointers. | 6 | 2 | 4 |  |  | 3.17 |
| 3 | Design and implement simple programs using basic syntax of C language such as assignment, expressions, selection, and iterations. | 7 | 4 | 1 |  |  | 3.5 |
| 4 | Practice modular programming by developing more complex C programs made of functions passing data between them using arrays, input, and output arguments. | 4 | 5 | 2 | 1 |  | 3.0 |
| 5 |  |  |  |  |  |  |  |

### 3.2: Students' Comments on Survey

<In response to the question “**In light of the learning outcomes, what did you like most about this course**”, please include students’ comments below>

|  |
| --- |
| **Response 2** .,,, |
| **Response 3** since all the topics were knew for me , I enjoyed learning allof them especially builting a modular programm usinf functions. |
| **Response 4** Recursion & sorting & searching because they are new topics for me . |
| **Response 5** nothing |
| **Response 6** Multiple ideas and how to build them with different ways .. Also , the last topics make our life easier to deal with big problems by using simple ways . |
| **Response 7** The fact that the topics: Data Files and Pointers were explained really well. Also the usage of WebCT in this course really helped. |
| **Response 8** what i liked most about this course is the WebCT. if anyone needed anything he just had to post his question online and get an answer in a matter of minutes. |
| **Response 9** I like your way when you teach and the use of WebCT |
| **Response 10** I like to write programs, and I am happy to learn this in this course.. |
| **Response 11** \* In fact, the most intresting part in the course is playing with loops . \* Also, this course has given me an ability to learn c++..which i think well help me in the modular design and simulation for some parts in my major , as my father told me before. |

<In response to the question “**In light of the learning outcomes, what did you hate most about this course**”, please include students’ comments below>

|  |
| --- |
| **Response 2** ... |
| **Response 3** ---------------------- |
| **Response 4** The way this language treats Strigns. |
| **Response 5** functions and call it and recurves functions |
| **Response 6** - loops ( exactly nested loop ) - strings - 2D - Arrays |
| **Response 7** Finding output of recursive programs. |
| **Response 8** what i hated the most about this course is the fact that we have more lectures than labs. what really helped me most to learn this course is the labs and the homeworks. in the lectures we only get the big picture. the real learning is on the labs. |
| **Response 9** there is a pressure in this course quizzes, homeworks, lab, project ... |
| **Response 10** Actually , there is nothing to hate. However, I think it would be better to me if I took the course in a full semester not summer . becouse in the summer , we have to master all the things in the course in 7 weeks and that was diffcult to me sence it my first time that I seal with prgraming. |
| **Response 11** The thing that i heat it alot is using functions while there is no actual need to do so , because , I think, that make the trasing harder ... another part I heat it , because I have not understood it well , is the pointers..for example why we use & in reading an array but we don't use it in reading a string which is actually an array of characters ?! |

<In response to the question “**In light of the learning outcomes, list any suggestions you have to improve this course**”, please include students’ comments below>

|  |
| --- |
| **Response 2** i tink... 2-days 1-hour lecturs 3-days 2-hours labs is better than now. |
| **Response 3** the lab classes should be more than the lecture classes since this course is programming not history.so, in my opinion the lab classes should be increased to 3 and the lecture ones be 2 or having the whole course in lab. |
| **Response 4** give more examples, and encorage students to give more attention to the reflections thing, it is so helpfull. |
| **Response 5** create a recention class every week to solve old majors |
| **Response 6** - Put a lot of examples . - Put some solving-strategies at the end of each Units to learn how to solve some examples step-by-step practicaly . |
| **Response 7** Perhaps, try and encourage group work. (Team projects etc.) |
| **Response 8** more labs. less lectures. |
| **Response 9** give marks for the students who attend the classes |
| **Response 10** I suggest that , it is better to have the class and the lab at the same time , the teacher will explain the material and then we can apply what we learn at the same time. |
| **Response 11** 1- Putting some library of problems from websites or books i thaink that well help us to realize the concepts perfectly.. like in math or physics 2- Concentrating on dubging the errors..i.e: i don't know why you have excluded the sections of "common Errors" that end every chapter.. I know Dr.. you regard it distinctly , but if you include it in the material, then we will consider it.. 3- There are some parts,i think, should be included in the material ..like: some mathematical and physical applications since we are all engineers.. like integration , graphing . finding zeros, this will make the course really beneficial for us , otherwise the material of the course will be no longer used from us . |

**4. Learning Outcomes Evaluation Method**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Outcome** |  | **Assessment Method** | | | | | | | | |
| **Assignments** | **Quizzes** | **Exam I** | **Exam II** | **Exam III** | **Final Exam** | **Lab Work** | **Project** | **Total** |
| **O1** | **Weight** |  | **2.5** | **5.25** |  |  |  |  |  | **7.75**  **60%** |
| **Average** |  | 1.62 | 4.43 |  |  |  |  |  | 6.05 (78.06%) |
| **Evidence** |  | #1 | #1,3 |  |  |  |  |  |  |
| **O2** | **Weight** |  | **5** |  | **6.3** |  | **7.5** |  |  | **18.8**  **80%** |
| **Average** |  | 2.2 |  | 4.35 |  | 6.25 |  |  | 12.8 (68.09%) |
| **Evidence** |  | #3-4 |  | #1,2 |  | #1 |  |  |  |
| **O3** | **Weight** | **6.67** | **2.5** | **9.75** | **6** |  |  | **10** |  | **34.92**  **75%** |
| **Average** | 5.26 | 1.54 | 8.89 | 4.5 |  |  | 8.1 |  | 28.29 (81.01%) |
| **Evidence** | #1-2 | #2 | #2,4,5 | #3,4 |  |  | Lab reports |  |  |
| **O4** | **Weight** | **3.33** |  |  | **2.7** |  | **17.5** | **10** |  | **33.53**  **60%** |
| **Average** | 2.1 |  |  | 1.83 |  | 12.72 | 8.1 |  | 24.75  (73.81%) |
| **Evidence** | #3 |  |  | #5 |  | #2-4 | Lab reports |  |  |
| **Weight** | | **10** | **10** | **15** | **15** |  | **25** | **20** |  | **95** |
| **Average** | | **7.36** | **5.36** | **13.32** | **10.68** |  | **18.97** | **16.2** |  | **71.89 (75.67%)** |

**5. Direct Assessment**

### 5.1: Grade Sheet for the Course

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ID#** | **Qz(10)** | **ExI(15)** | **ExII(15)** | **HW(10)** | **Lab(20)** | **Final(25)** | **Disc.(5)** | **Total(100)** | **Grade** |
| 200835160 | 9.6 | 14.7 | 14.7 | 10.0 | 20.0 | 24.8 | 8.0 | 101.8 | A+ |
| 200781890 | 9.1 | 13.4 | 14.0 | 9.6 | 20.0 | 24.5 | 4.5 | 95.0 | A+ |
| 200791670 | 7.9 | 13.7 | 14.1 | 9.8 | 18.5 | 23.6 | 6.0 | 93.7 | A+ |
| 200789790 | 8.0 | 14.5 | 13.2 | 9.2 | 16.9 | 24.4 | 7.5 | 93.7 | A+ |
| 200719570 | 7.1 | 13.7 | 13.5 | 10.0 | 19.8 | 23.9 | 5.0 | 93.0 | A+ |
| 200773150 | 7.6 | 13.7 | 12.0 | 10.0 | 19.5 | 21.4 | 7.5 | 91.6 | A+ |
| 200758650 | 8.0 | 14.6 | 12.5 | 9.1 | 16.3 | 23.1 | 6.5 | 90.0 | A+ |
| 200717090 | 5.7 | 13.7 | 13.3 | 8.5 | 15.8 | 22.4 | 6.0 | 85.3 | A |
| 200745290 | 6.4 | 13.7 | 9.3 | 6.3 | 15.3 | 18.4 | 6.0 | 75.3 | B |
| 200640760 | 5.6 | 13.8 | 8.1 | 4.4 | 14.3 | 17.3 | 2.5 | 66.0 | C |
| 200721890 | 4.7 | 11.9 | 6.8 | 2.1 | 11.9 | 13.9 | 3.0 | 54.4 | D+ |
| 200771010 | 4.9 | 12.8 | 4.7 | 4.0 | 13.0 | 8.4 | 5.0 | 52.7 | D |
| 200781030 | 4.3 | 8.9 | 2.9 | 2.7 | 9.1 | 2.1 | 2.5 | 32.5 | F |
| **AVG** | **6.8** | **13.3** | **10.7** | **7.4** | **16.2** | **19.1** | **5.4** | **78.8** |  |
| **MAX** | **9.6** | **14.7** | **14.7** | **10.0** | **20.0** | **24.8** | **8.0** | **101.8** |  |
| **MIN** | **4.3** | **8.9** | **2.9** | **2.1** | **9.1** | **2.1** | **2.5** | **32.5** |  |

### 5.2: STUDENTS:

The following information should be supplied based on the FINAL ROSTER of grade issued by the Registrar:

No. of students who received W

No. of students who received Z

No. of students who received WP 3

No. of students who received WF

No. of students who received DN

No. of students who received NP

No. of students who received IC

No. of students who received AU

No. of students (excluding the above who took the final exam.) 13

No. of students (excluding the above) who missed the final exam.) 0

Total : 16

### 5.3: RANGE OF EACH LETTER GRADE

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| LETTER GRADE | A+ | A | B+ | B | C+ | C | D+ | D | F |
| RANGE | ≥90 | ≥84 | ≥78 | ≥73 | ≥68 | ≥62 | ≥55 | ≥49 | <49 |

### 5.4: DISTRIBUTION OF GRADES AND CLASS GPA:



### 5.5: “I” GRADES:

Attached a report on each “I” Grade providing the following information:

1. Student’s ID #, Name, Section #, and Instructor’s name.
2. Reason for giving an “I” Grade.
3. Precise requirements for the removal of “I” Grade including time and method.

|  |
| --- |
| **COPY OF “I” GRADE REPORTS** |

|  |
| --- |
| **Overall Evaluation and Improvement** |

**King Fahd University of Petroleum and Minerals**

**College of Computer Science and Engineering**

**Information and Computer Science Department**

**Overall Evaluation and Improvement**

**Instructor: Dr. Aiman El-Maleh** **Course# ICS103-Sec#: 1** **Semester:** 083

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### Summary of Course Evaluation By Students

Based on student indirect assessment of the course learning outcomes, all outcomes are considered achieved with satisfactory level.

### Summary of Instructor Evaluation By Students

Based on direct assessment of the course learning outcomes, all outcomes are considered achieved with satisfactory level. However, outcome 2 needs improvement.

### Instructor’s Response to Students’ Comments in (1) & (2)

### Instructor’s Proposed List of Actions to Improve the Course

In order to improve the achievement of the course learning outcomes of the course, more homework need to be given. More emphasis on analysis of how programs execute needs to be given. In particular, more examples need to be given on tracing recursive functions. Some students prefer more labs than lectures or merging the lecture with the lab which is a valid suggestion. Having the course delivered as two sessions of 2.5 hours each with merging the lecture and lab together is a good idea.

|  |
| --- |
| **SYLLABUS** |

|  |
| --- |
| **QUIZZES** |

|  |
| --- |
| **HOMEWORK ASSIGNMENTS** |

|  |
| --- |
| **PROJECTS** |

|  |
| --- |
| **MIDTERM & MAJOR EXAMS** |

|  |
| --- |
| **FINAL EXAM** |

|  |
| --- |
| **KEY SOLUTIONS** |

|  |
| --- |
| **BEST, AVERAGE AND WORST SAMPLES** |

|  |
| --- |
| **CD CONTENT:**   1. Softcopy of the Course Assessment Report (Word Document) & Grade Sheet (Excel File) 2. Softcopy of the Course Syllabus 3. Lecture & Lab Notes 4. Softcopies of Exams, Quizzes, Projects, Homework, etc. & Key Solutions 5. Best/Average/Worst Samples of Programming assignments (Homework, Projects, Labs, etc.) & Other Reports 6. Sample of Electronic communications (Discussions from WebCT) 7. Other Course-Related Material (e.g. manuals, reference booklets, standards and documents) |

|  |
| --- |
| **HANDOUTS (IF NOT ON CD)** |

|  |
| --- |
| **LAB MATERIAL**   * Instructor Feedback to Improve the Lab * Lab syllabus if not integrated in the course syllabus (hard & soft copies) * Grade Sheet (hard & soft copies) * Best, Average, & Worst Samples (on CD if too lengthy to be printed) * Lab Notes (on CD) * Softcopies of Quizzes, Projects, Other Assignments and Key Solutions (on CD) * Sample of Electronic Discussions and Communications (on CD) * Lab manuals, if any (soft and/or hard copies) * Additional Lab Related Material (on CD and/or hardcopies) |

|  |
| --- |
| **OTHERS**  (Please specify): |