Course Specifications

Programme(s) on which the course is given B.Sc. of Pure Mathematics and Computer Science, Physics and computer science

Major or minor element of programs Major
Department offering the program Mathematics
Department offering the course Mathematics
Academic year / Level Third level (3)
Semester
Date of specification revision September 2012
Date of specification approval September 2012

A- Basic Information

Title: Advanced Programming Language **Code:** M3312

Credit Hours: 3 **Total:** 3 hr.

Lecture: 3 **Tutorial:** - **Practical:** - **Other:** -

B- Professional Information

1 – Overall Aims of Course

The students learn to build functional and effective web sites that support user needs and capabilities requires a mixture of technical, design, and analytical skills. This course lays the foundation for proficient web design by covering the technical skills involved, including xHTML, the markup language used to encode web pages, Java Applets and Java Servlet (or any web programming language) for building interactive web sites and MVC technology. It also covers the basic steps to develop and deploy web pages.

2 – Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

The student should be able to

a1- know the basics about web publishing

a2- express knowledge to write and design web applications

a3- define enough knowledge to handle web application servers

a4- review current development in e-computing technologies.

b- Intellectual Skills

b1- use java classes and xml pages to handle information

b2- practice the process of upload and deploy web applications

b3- differentiate between a static and dynamic web pages.

c- Professional and Practical Skills

c1- implement MVC technology for developing 3-tier web applications

c2- create professional web pages

c3- professional use of classes and interfaces

d- General and Transferable Skills

d1- demonstrate knowledge about the web and its structure

d2- identify J2EE technology

d3- managing web application servers

d4- organize team work

d5- design user interface.

3- Contents

Topics	No. of hours	Lecture	Tutorial/Practical

Revision of J2EE technology	**6**	**2**	**-**
Introduction to web design	**6**	**2**	**-**
Static pages and HTML	**6**	**2**	**-**
Java Servlet Pages (JSP)	**6**	**2**	**-**
Core Servlets Programming	**6**	**2**	**-**
MVC technology	**6**	**2**	**-**
Handling Requests in JServlets	**6**	**2**	**-**

4– Teaching and learning methods

4.1- Lectures

4.2- Working on hand in assignments

4.3- Attending practical classes

5- Student assessment methods

5.1 Mid term written exam to assess understanding competencies

5.2 Term project to assess programming skills

5.3 Oral Exam to assess attendance and interesting.

5.4 Semester hand in assignments to assess understanding professionalism.

5.5 Final project to assess a whole lab skills

5.6 Final term written Exam to assess comprehension.

Assessment schedule

Assessment 1	**Mid term + project**	**Week 7**
Assessment 2	**semester activities**	**Week 5 and 8**
Assessment 3	**Final term oral exam**	**Week 13**
Assessment 4	**final term written exam**	**Week 14**

Weighting of assessments

Mid-Term Examination

20%

Semester Work (homework assignments + oral tests)

10%

Project assessment
10%
Final-term written Examination
60%
Total
100%

Any formative only assessments

6- List of references

6.1- Course notes

Collected and prepared notes that covers the main topics in the course content

6.2- Essential books (text books)

Elementary textbooks under the title: *none*

6.3- Recommended books:

6.4- Periodicals, Web sites, … etc

www.corejavaservlets.com
java.sun.com
www.Netbeans.com/documentation

7- Facilities required for teaching and learning

Lecture: PC's - packages for ready-made scientific programs. - Data Show

Lab: Advanced lab contains all the network tools, instrumentation, and packages.

Course coordinator: Dr. Passent El-Kafrawy

Head of Department: Prof. Mohamed R. Abdellatif

Date: / /