The University of Jordan
Accreditation & Quality Assurance Center

COURSE Syllabus

Course Name: Math. for Business & Social Sciences
<table>
<thead>
<tr>
<th></th>
<th>Course title</th>
<th>Math. for Business &amp; Social Sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Course number</td>
<td>(0331103)</td>
</tr>
<tr>
<td>3</td>
<td>Credit hours (theory, practical)</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>Contact hours (theory, practical)</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>Prerequisites/corequisites</td>
<td>None</td>
</tr>
<tr>
<td>5</td>
<td>Program title</td>
<td>B.Sc.</td>
</tr>
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<td>6</td>
<td>Program code</td>
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</tr>
<tr>
<td>7</td>
<td>Awarding institution</td>
<td>The University of Jordan</td>
</tr>
<tr>
<td>8</td>
<td>Faculty</td>
<td>Science</td>
</tr>
<tr>
<td>9</td>
<td>Department</td>
<td>Mathematics</td>
</tr>
<tr>
<td>10</td>
<td>Level of course</td>
<td>College requirement</td>
</tr>
<tr>
<td>11</td>
<td>Year of study and semester(s)</td>
<td>all Semesters</td>
</tr>
<tr>
<td>12</td>
<td>Final Qualification</td>
<td>B.Sc. in Mathematics</td>
</tr>
<tr>
<td>13</td>
<td>Other department(s) involved in teaching the course</td>
<td>None</td>
</tr>
<tr>
<td>14</td>
<td>Language of Instruction</td>
<td>English</td>
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<tr>
<td>15</td>
<td>Date of production/revision</td>
<td>1.11.2016</td>
</tr>
</tbody>
</table>

16. Course Coordinator:

Office numbers, office hours, phone numbers, and email addresses should be listed.

Dr. Tyseer Nour

17. Other instructors:

Office numbers, office hours, phone numbers, and email addresses should be listed.

18. Course Description:

As stated in the approved study plan.

19. Course aims and outcomes:

A- Aims:

1. Understand basic math skills that will make other economic courses much easier.
2. Use mathematics successfully in business and economic applications.
3. Develop analytical and organizational skills.

B- Intended Learning Outcomes (ILOs):

Successful completion of the course should lead to the following outcomes:

A. Knowledge and Understanding Skills: Student is expected to

A1. Sketch linear functions and find its equation also solve a system of two simultaneous linear equations in two unknowns using elimination method.

A2. Identify and sketch a linear demand and supply functions and determine the equilibrium price and quantity.

B. Intellectual Analytical and Cognitive Skills: Student is expected to

B1. Solve quadratic equations and graph quadratic functions as: supply, demand, revenue and profit functions also find the maximum or minimum values for these functions.

B2. Use the rules of logarithms to solve equations.

C. Subject-Specific Skills: Student is expected to

C1. Find the first and second derivative of the function f(x) and all first and second order partial derivatives for f(x,y) in order to find and classify the stationary points.

C2. Find economic functions as marginal functions associated with revenue, cost, production, and saving, and optimize these functions with constraint and without constraint.

D. Creativity/Transferable Key Skills/Evaluation: Student is expected to

D1. Master integration rules and evaluate definite integrals in simple cases then use integration to find total cost and revenue functions given their marginal functions and calculate producer’s and consumer’s surplus.

D2. Understand the basic matrices operations also find the inverse of (2x2) and (3x3) matrix (if it exists) to use the inverse in solving a system of linear equations or use Cramer’s rule to solve a system of linear equations.
20. Topic Outline and Schedule:

<table>
<thead>
<tr>
<th>Week</th>
<th>Instructor</th>
<th>Achieved ILOs</th>
<th>Evaluation Methods</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3</td>
<td></td>
<td>A1, A2</td>
<td>Exam</td>
<td></td>
</tr>
<tr>
<td>4-5</td>
<td></td>
<td>B1, B2</td>
<td>Exam</td>
<td></td>
</tr>
<tr>
<td>5-7</td>
<td></td>
<td>C1, C2</td>
<td>Exam</td>
<td></td>
</tr>
<tr>
<td>8-11</td>
<td></td>
<td>C1, C2</td>
<td>Exam</td>
<td></td>
</tr>
<tr>
<td>12-13</td>
<td></td>
<td>D1</td>
<td>Exam</td>
<td></td>
</tr>
</tbody>
</table>

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

- In order to succeed in this course, each student needs to be an active participant in learning – both in class and out of class.
- The instructor will spend most of the class time on presenting the new material as well as on discussing homework problems.
- Group work in this class is encouraged.
- To actively participate in class, you need to prepare by reading the textbook and to do all assigned problems before class. (Problems will be assigned each class period, then to be discussed the following period).
- You should be prepared to discuss your homework at each class meeting.
- You are encouraged to work together with other students and to ask questions and seek help from your professor, both in and out of class.
- Students are also encouraged to use graphing calculators extensively and to use computer software supplements.
22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

<table>
<thead>
<tr>
<th>ILO/s Related ILO/s to the program</th>
<th>Learning Methods</th>
<th>Evaluation Methods</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lectures</td>
<td>Exam</td>
<td>A1, A3, A4, D1</td>
</tr>
</tbody>
</table>

23. Course Policies:

1. Attendance is absolutely essential to succeed in this course. You are expected to attend every class; please notify your instructor if you know you are going to be absent. All exams must be taken at the scheduled time. Exceptions will be made only in extreme circumstances, by prior arrangement with the instructor.
2. If a student is absent for more than 10% of lectures without an excuse of sickness or due to other insurmountable difficulty, then he/she shall be barred from the final examination also he/she will get a failing grade in this course.
3. Medical certificates shall be given to the University Physician to be authorized by him. They should be presented to the Dean of the Faculty within two weeks of the student’s ceasing to attend classes.
4. Test papers shall be returned to students after correction. His/her mark is considered final after a lapse of one week following their return.
5. Cheating is prohibited. The University of Jordan regulations on cheating will be applied to any student who cheats in exams or on homeworks.

24. Required equipment:

Data Shows

25. References:

A- Required book (s), assigned reading and audio-visuals:
Ian Jacques, Mathematics for Economics and Business. 7th Edition

B- Recommended books, materials, and media:
Ian Jacques, Mathematics for Economics and Business. 7th Edition

26. Additional information:
Name of Course Coordinator: Dr. Tyseer Nour  Signature: ---------------- Date: 1/11/2017
Head of curriculum committee/Department: Dr. Emad Abu Osba  Signature: -----------------

Head of Department: Dr. Baha Alzalg  Signature: -------------------------
Head of curriculum committee/Faculty: Dr. Amal Al-Aboudi Signature: -----------------------
Dean: Dr. Sami Mahmood  Signature: ---------------------------

Copy to:
Head of Department
Assistant Dean for Quality Assurance
Course File