The University of Jordan

Accreditation & Quality Assurance Center

Course Syllabus

Course Name:
16. Course Coordinator:
Office numbers, office hours, phone numbers, and email addresses should be listed.

M220, 2-3 daily, 22056, j_sharaf@ju.edu.jo

17. Other instructors:
Office numbers, office hours, phone numbers, and email addresses should be listed.

M220, 2-3 daily, 22056, j_sharaf@ju.edu.jo

18. Course Description:
As stated in the approved study plan.
19. Course aims and outcomes:

A- Aims:
Understanding the fundamental of radiation physics including the production of ionizing radiation and its interaction with matter as well as discussing topics in radiation dosimetry, instrumentation, applications and radiation protection.

B- Intended Learning Outcomes (ILOs): Upon successful completion of this course students will be able to …

Upon completing Radiation Physics, students will be able to demonstrate the understanding of:

1. Radiation concepts
2. Radiation detection, monitoring, and measurement
3. Biological effects of radiation and dosimetry
4. Application of radiation in medicine and industry.
20. Topic Outline and Schedule:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Week</th>
<th>Instructor</th>
<th>Achieved ILOs</th>
<th>Evaluation Methods</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiation Sources</td>
<td>1+2</td>
<td></td>
<td></td>
<td>First exam</td>
<td></td>
</tr>
<tr>
<td>Radiation Interactions</td>
<td>3+4+5</td>
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<tr>
<td>Radiation Dosimetry</td>
<td>6+7+8</td>
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<td></td>
<td>Second exam</td>
<td></td>
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<tr>
<td>Radiation Detection</td>
<td>9+10</td>
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<tr>
<td>Radiation Biological effects</td>
<td>11+12</td>
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<tr>
<td>Instrumentations</td>
<td>13</td>
<td></td>
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<td>Final exam</td>
<td></td>
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<tr>
<td>Radiation Spectroscopy and protection</td>
<td>14+15</td>
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</tbody>
</table>

21. Teaching Methods and Assignments:

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

Through developing self-learning and problem solving.

22. Evaluation Methods and Course Requirements:

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

Students are required to search topics and construct a short presentation to present in class in addition to problem solving.

23. Course Policies:

A- Attendance policies:
Regular attendance at all learning activities is expected, and unsatisfactory attendance may lead to disciplinary action according to the University of Jordan regulations.

B- Absences from exams and handing in assignments on time:
Students may be permitted to make up an exam missed due to illness or other legitimate absence. A doctor’s certification before allowing a student to make up an exam due to illness is required.

C- Health and safety procedures:

D- Honesty policy regarding cheating, plagiarism, misbehavior:
The University Of Jordan policy will be implemented

E- Grading policy:
The course grade will be determined according to the following:
- First exam: 20%
- Second exam: 30%
- Final exam: 50%

F- Available university services that support achievement in the course:

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### 24. Required equipment:

1. Blackboard and Transparencies
2. Multimedia CDs and Internet

### 25. References:

#### A- Required book(s), assigned reading and audio-visuals:


#### B- Recommended books, materials, and media:

Introduction to Health Physics, 3rd edition, 1996, by Herman Cember.

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### 26. Additional information:
Name of Course Coordinator: Prof. Jamal Sharaf Signature: ------------------------- Date: 10/1/2017

Head of curriculum committee/Department: ------------------------- Signature: -------------------------

Head of Department: ------------------------- Signature: -------------------------

Head of curriculum committee/Faculty: ------------------------- Signature: -------------------------

Dean: ------------------------- Signature: -------------------------

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