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| <b>University of Basrah</b>                                   |
| <b>College of Computer Science and Information Technology</b> |

| <b>Course Information</b> |                       |
|---------------------------|-----------------------|
| <b>Course Title</b>       | Software Engineering  |
| <b>Course Number</b>      | IS 301                |
| <b>Prerequisites</b>      | 3 <sup>rd</sup> level |
| <b>Credits</b>            | 3 Hours               |
| <b>Teaching Method</b>    | 3Hours of Lecture     |

| <b>Assessment Policy</b>     |                              |               |
|------------------------------|------------------------------|---------------|
| <b>Assessment Type</b>       | <b>Expected Due Date</b>     | <b>Weight</b> |
| First Exam                   | To be announced by the dept. |               |
| Second Exam                  | To be announced by the dept. |               |
| Student activities (Quizzes) | To be announced later        |               |
| Lab                          | To be announced later        |               |
| Lab (final)                  | To be announced later        |               |
| Final Exam                   | To be announced later        |               |

| <b>Learning Outcomes</b>   |
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| <p>The students study planning and design of software including development processes, life-cycle models, quality issues, requirements analysis, design techniques, testing, and project management.</p> <hr/> |

| <b>Week</b> | <b>Topics</b>  |
|-------------|--|
|             | Team working   |
|             | Software project planning  |
|             | Software Methods   |
|             | Software Requirements Gathering  |
|             | Functional Modeling: Use Cases and Activity Diagrams                   |
|             | Structural Modeling: domain modeling                                   |
|             | Structural Modeling: system classes                                    |
|             | Behavioral modeling  |
|             | Introduction to User Interface Design                                  |
|             | System Design: Software design based on GRASP principles               |
|             | System Design: Software System Architecture                            |
|             | System Implementation: Verification and validation of software systems |
|             | System Implementation: tools   |

| <b>Textbooks</b>   |
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| <ul style="list-style-type: none"> <li>• Ian Sommerville, Software Engineering, 9th ed., 2011</li> </ul> |