

# Software Process Management and Metrics

Course Outline (Fall 2016)

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**Office Hours:** by appointment

## Objective of the Course

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The objective of this course is to create awareness amongst students regarding the importance of software process management. It also includes familiarizing students with the basic concepts of software process management along with various practices and providing guidelines for applying these concepts. Students are encouraged to apply these concepts in their workplaces to bring about improvements in existing software process.

## Text Books and Reference Material

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### Text Books:

Managing the Software Process (1<sup>st</sup> Edition)

Watts S. Humphrey

*Additional reference material may be provided in the duration of the course.*

## Course Topics

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| 1. Introduction to Process Improvement | 9. CMMI                                  |
| 2. The Initial Process                 | 10. ISO 27001                            |
| 3. Managing Software Organizations     | 11. Software Process Assurance           |
| 4. Software Engineering Process Group  | 12. Process Assessments                  |
| 5. Implementing Process Change         | 13. Process Automation                   |
| 6. Process Modeling Techniques         | 14. Data Gathering, Metrics and Analysis |
| 7. PSP and TSP                         |  |
| 8. ISO 9001:2008                       |  |

## Lectures and Attendance Policy

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Most sessions will be a combination of lecture and discussion.

Students are expected to attend no less than 75% of the classes, be ready to begin the class on time and not leave before the designated time. Students are also expected to come prepared by going through the material to be discussed in each class beforehand and participate in class discussions.

## Evaluation

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Term paper/ Presentations	30
Mid Semester Evaluation	20
Final Semester Evaluation	40
Class Participation	10
<b>Total:</b>	<b>100 points</b>
<b>Grading:</b>	<b>A,A- , B+,B,B- , C,C- , and F</b>

As mentioned above, 10% credit is for productive class participation, which includes sharing Process Management related ideas and examples from personal experience or other sources as well as data (available on the Web, in books, journals, magazines, or otherwise).

**NOTE: All deliverables are expected 100% on time. If the deliverable is not submitted on due date, there will be a penalty of 20%. It will not be accepted once the deliverable has been returned / discussed in class. Please discuss any issues in a timely manner – no consideration will be given at the end of the course.**