

## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING - CYBER SECURITY

| Course with Code: Software Engineering and Project Management |                      |                                                                                            |             | Faculty: Mrs. Pallavi R |                            |                | Semester & Section: V |                          |
|---------------------------------------------------------------|----------------------|--------------------------------------------------------------------------------------------|-------------|-------------------------|----------------------------|----------------|-----------------------|--------------------------|
| Class No.                                                     | Date planned (DD/MM) | Topics to be covered                                                                       | TLP Planned | Class No.               | Date of Conduction (DD/MM) | Topics Covered | TLP Executed          | Remarks if any deviation |
| MODULE-1                                                      |                      |                                                                                            |             |                         |                            |                |                       |                          |
| 1.                                                            |                      | Introduction                                                                               | PPT         |                         |                            |                |                       |                          |
| 2.                                                            |                      | Introduction to Software, Characteristics of Software, Software Applications.              | PPT         |                         |                            |                |                       |                          |
| 3.                                                            |                      | The unique nature of Web Apps, Characteristics of Web Apps, Needs of Software Engineering. | PPT         |                         |                            |                |                       |                          |
| 4.                                                            |                      | Layered Technology, Software Myths.                                                        | PPT         |                         |                            |                |                       |                          |
| 5.                                                            |                      | SDLC, Software Process                                                                     | PPT         |                         |                            |                |                       |                          |
| 6.                                                            |                      | Generic Process Framework, Umbrella Activity                                               | PPT         |                         |                            |                |                       |                          |
| 7.                                                            |                      | Process Assessment and Improvement, Standards used in PAI- CMMI                            | PPT         |                         |                            |                |                       |                          |
| 8.                                                            |                      | Perspective Process Models: Waterfall Model, V-Model, Incremental Model                    | PPT         |                         |                            |                |                       |                          |
| 9.                                                            |                      | Evolutionary Model, Spiral Model, Concurrent Model                                         | PPT         |                         |                            |                |                       |                          |
| 10.                                                           |                      | Specialized Model, Unified Process, Personal Software Process, Team Software Process       | PPT         |                         |                            |                |                       |                          |
| 11.                                                           |                      | Revision, Module End Question discussion, Quiz                                             | Quiz        |                         |                            |                |                       |                          |

## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING - CYBER SECURITY

| Course with Code: Software Engineering and Project Management- BCS501 |                      |                                                                                           |               | Faculty: Mrs. Pallavi R |                            |                | Semester & Section: V |                          |
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| Class No.                                                             | Date planned (DD/MM) | Topics to be covered                                                                      | TLP Planned   | Class No.               | Date of Conduction (DD/MM) | Topics Covered | TLP Executed          | Remarks if any deviation |
| MODULE-2                                                              |                      |                                                                                           |               |                         |                            |                |                       |                          |
| 12                                                                    |                      | Requirement Engineering, Requirement Engineering Process.                                 | PPT           |                         |                            |                |                       |                          |
| 13                                                                    |                      | Establishing the Groundwork, UML- use case, Scenario based modeling- Preliminary Use Case | PPT           |                         |                            |                |                       |                          |
| 14                                                                    |                      | Formal Use Case, Data modeling Concepts, Class-based Modeling.                            | PPT           |                         |                            |                |                       |                          |
| 15                                                                    |                      | Flow-oriented modeling: DFD                                                               | PPT           |                         |                            |                |                       |                          |
| 16                                                                    |                      | Behavioral Modeling: Activity, Sequence diagram                                           | PPT           |                         |                            |                |                       |                          |
| 17                                                                    |                      | Revision, Module End Question discussion, Quiz                                            | MS Forms Quiz |                         |                            |                |                       |                          |

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| Class No.                                                             | Date planned | Topics to be covered                                                                                      | TLP Planned | Class No.               | Date of Conduction | Topics Covered | TLP Executed          | Remarks if any deviation |
| MODULE-3                                                              |              |                                                                                                           |             |                         |                    |                |                       |                          |
| 18                                                                    |              | Agility, Agility and the cost of change, Agile Process, Agile Principles.                                 | PPT         |                         |                    |                |                       |                          |
| 19                                                                    |              | Extreme Programming, XP process,                                                                          | PPT         |                         |                    |                |                       |                          |
| 20                                                                    |              | Principles of XP, Applications of XP, XP Practices                                                        | PPT         |                         |                    |                |                       |                          |
| 21                                                                    |              | Agile Process Models: Adaptive Software Development (ASD), Scrum                                          | PPT         |                         |                    |                |                       |                          |
| 22                                                                    |              | Feature Driven Development, Dynamic System Development, Crystal                                           | PPT         |                         |                    |                |                       |                          |
| 23                                                                    |              | Agile Modeling (AM), Agile Unified Process (AUP) Lean Software Development, A tool set for Agile process. | PPT         |                         |                    |                |                       |                          |
| 24                                                                    |              | Core Principles: Principles that guide Process, Principles that guide Practices,                          | PPT         |                         |                    |                |                       |                          |
| 25                                                                    |              | Principles that guide Each Framework Activity: Communication                                              | PPT         |                         |                    |                |                       |                          |
| 26                                                                    |              | Principles that guide Each Framework Activity: Planning, Modeling                                         | PPT         |                         |                    |                |                       |                          |
| 27                                                                    |              | Modeling: Requirement modeling principles, Design Modeling principles                                     | PPT         |                         |                    |                |                       |                          |
| 28                                                                    |              | Construction Principles, Deployment Principles                                                            | PPT         |                         |                    |                |                       |                          |
| 29                                                                    |              | Revision                                                                                                  | Quiz        |                         |                    |                |                       |                          |

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| <b>MODULE-4</b>                                                       |                      |                                                                                 |             |                         |                            |                |                       |                          |
| 30                                                                    |                      | Introduction to Software Project Management, Project, Contract Management       | PPT         |                         |                            |                |                       |                          |
| 31                                                                    |                      | Activity Covered by Software Project Management, Plans, Methods, Methodologies  | PPT         |                         |                            |                |                       |                          |
| 32                                                                    |                      | Some ways of categorizing software projects, Stakeholders                       | PPT         |                         |                            |                |                       |                          |
| 33                                                                    |                      | Setting Objectives, Business Case, Project Success and Failure                  | PPT         |                         |                            |                |                       |                          |
| 34                                                                    |                      | Management and Management Control, Project Management Life Cycle                | PPT         |                         |                            |                |                       |                          |
| 35                                                                    |                      | Traditional versus Modern Management Practices                                  | PPT         |                         |                            |                |                       |                          |
| 36                                                                    |                      | Evaluation of Individual Projects, Cost benefit analysis, Cash flow forecasting | PPT         |                         |                            |                |                       |                          |
| 7                                                                     |                      | Cost-benefit Evaluation Techniques                                              | PPT         |                         |                            |                |                       |                          |
| 38                                                                    |                      | Risk Evaluation, Program Management                                             | PPT         |                         |                            |                |                       |                          |
| 39                                                                    |                      | Revision, Module End Question discussion, Quiz                                  | Quiz        |                         |                            |                |                       |                          |

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| Class No.                                                             | Date planned | Topics to be covered                                                                                                     | TLP Planned | Class No.               | Date of Conduction | Topics Covered | TLP Executed          | Remarks if any deviation |
| <b>MODULE-5</b>                                                       |              |                                                                                                                          |             |                         |                    |                |                       |                          |
| 40                                                                    |              | Software Quality and software project estimation: Introduction Place of software quality in project planning, Importance | PPT         |                         |                    |                |                       |                          |
| 41                                                                    |              | Defining Software Quality, Software Quality Models                                                                       | PPT         |                         |                    |                |                       |                          |
| 42                                                                    |              | ISO 9126                                                                                                                 | PPT         |                         |                    |                |                       |                          |
| 43                                                                    |              | Product and Process Metrics, Product versus Process Quality Management                                                   | PPT         |                         |                    |                |                       |                          |
| 44                                                                    |              | Observation on Estimation, Project planning Process, Software Scope and Feasibility                                      | PPT         |                         |                    |                |                       |                          |
| 45                                                                    |              | Resources: Human Resources, Reusable Software Resources, Environmental Resources                                         | PPT         |                         |                    |                |                       |                          |
| 46                                                                    |              | Software Project Estimation, Decomposition Techniques: Software Sizing,                                                  | PPT         |                         |                    |                |                       |                          |
| 47                                                                    |              | Problem-Based Estimation. An Example of LOC-Based Estimation,                                                            | PPT         |                         |                    |                |                       |                          |

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| Class No.                                                             | Data planned | Topics to be covered                                                                                    | TLP Planned | Class No.               | Date of conduction | Topics Covered | Remarks if any deviation |
| MODULE-5                                                              |              |                                                                                                         |             |                         |                    |                |                          |
| 48                                                                    |              | An Example of FP-Based Estimation, Process-Based Estimation                                             | PPT         |                         |                    |                |                          |
| 49                                                                    |              | An Example of Process-Based Estimation, Estimation with Use Cases.                                      | PPT         |                         |                    |                |                          |
| 50                                                                    |              | An Example of Use-Case-Based Estimation, Reconciling Estimates                                          | PPT         |                         |                    |                |                          |
| 51                                                                    |              | Empirical Estimation Models: The Structure of Estimation Models, The COCOMO II Model, Software Equation | PPT         |                         |                    |                |                          |
| 52                                                                    |              | Revision, Module End Question discussion, Quiz                                                          | Quiz        |                         |                    |                |                          |

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|                    | Activity                                         | Planned | Actual             | Remarks |
|--------------------|--------------------------------------------------|---------|--------------------|---------|
| 1                  | Theory Classes                                   | 52      |                    |         |
| 2                  | Assignments/ Quizzes/<br>Self-study              | 3       |                    |         |
| 3                  | Tutorials/ Extra classes                         | -       |                    |         |
| 4                  | Internal Assessments                             | 3       |                    |         |
| 5                  | ICT based Teaching<br>(% of usage in Curriculum) | 100     |                    |         |
| Planning           |                                                  |         | Execution          |         |
| Faculty Signature: |                                                  |         | Faculty Signature: |         |
| HoD Signature:     |                                                  |         | HoD Signature:     |         |



# ATME

College of Engineering



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