Course Timeline

Here is a suggested timeline to cover the specified topics in a 3-month course:

Month 1: Introduction to Software Engineering and Process

* Week 1: Nature of Software, Overview of Software Engineering
■+ Topics: Definition of software, software crisis, software engineering principles, software development
■+ Assignments: Introduction to software engineering, software development life cycle diagram
* Week 2: Professional Software Development, Software Engineering Practice
■+ Topics: Roles and responsibilities in software development, software engineering principles, software
■+ Assignments: Software development team roles, software engineering principles essay
* Week 3: Software Process Structure, Software Process Models
■+ Topics: Software process, process models, waterfall model, V-model
■+ Assignments: Software process diagram, process model comparison

Month 2: Agile Development and Requirements Engineering

* Week 4: Agile Software Development, Agile Process Models
■+ Topics: Agile manifesto, agile principles, Scrum, Kanban
■+ Assignments: Agile manifesto analysis, Scrum framework diagram
* Week 5: Agile Development Techniques, Requirements Engineering Process
■+ Topics: Agile development techniques, user stories, requirements engineering process
■+ Assignments: User story writing, requirements engineering process diagram
* Week 6: Functional and Non-Functional Requirements, Context Models
■+ Topics: Functional and non-functional requirements, context models, use cases
■+ Assignments: Requirements categorization, context model diagram

Month 3: Design, Implementation, Testing, and Management

* Week 7: Interaction Models, Structural Models, Behavioral Models
■+ Topics: Interaction models, structural models, behavioral models, UML diagrams
■+ Assignments: UML diagram creation, model comparison
* Week 8: Model-Driven Engineering, Architectural Design
■+ Topics: Model-driven engineering, architectural design, design patterns
■+ Assignments: Architectural design diagram, design pattern analysis
* Week 9: Design and Implementation, UML Diagrams
■+ Topics: Design and implementation, UML diagrams, class diagrams
■+ Assignments: Design and implementation plan, UML diagram creation
* Week 10: Software Testing and Quality Assurance, Software Evolution
■+ Topics: Software testing, quality assurance, software evolution
■+ Assignments: Testing plan, software evolution scenario
* Week 11: Project Management and Planning, Configuration Management
■+ Topics: Project management, project planning, configuration management
■+ Assignments: Project plan, configuration management plan
* Week 12: Software Process Improvement
■+ Topics: Software process improvement, CMMI, ISO 9001
■+ Assignments: Process improvement plan, CMMI analysis

This timeline is just a suggestion and can be adjusted according to the class size, student background, a