**Course Syllabus**

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| **Code and Name** | CSE327 Software Engineering |
| **Type** | Core |
| **Credit Hours** | 3 |
| **Pre-requisites** | CSE311 Database Systems |

**Course Summary**

Follows the software life cycle – from requirement, specification, and design phases through the construction of actual software. Topics include management of programming teams, programming methodologies, debugging aids, documentation, evaluation and measurement of software, verification and testing techniques, and the problems of maintenance, modification, and portability.

**Course Objectives**

The objectives of this course are

1. Give the students an appreciation of the complexity involved in the inception, design, implementation and delivery of modern software systems.
2. Students should appreciate what makes quality software and how software engineering topics/methods can be effective to deliver such quality products.
3. The course will present theoretical material and create opportunities for students to apply what they learn in class and from other sources.

**Textbooks**

1. Ian Sommerville, 2010, Software Engineering,  9th Ed., Pearson, ISBN-13: 978-013703-5151
2. Erich Gamma, Richard Helm, Ralph Johnson and John Vlissides, 1994, Design Patterns: Elements of Reusable Object-Oriented Software, 1st Ed., Addison-Wesley Professional, ISBN-13: 978-020163-3610

**Reference Book**

Stephen R Schach, 2010, Object-Oriented and Classical Software Engineering, 8th Ed., McGraw-Hill Education, ISBN-13: 978-007337-6189

**Online Resources**

* <https://airbrake.io/blog/design-patterns/>

 [Links to an external site.](https://airbrake.io/blog/design-patterns/)

 <https://www.atlassian.com/git/tutorials>

 [Links to an external site.](https://www.atlassian.com/git/tutorials)

 <https://git-scm.com/docs/gittutorial>

 [Links to an external site.](https://git-scm.com/docs/gittutorial)

 <https://laravel.com/>

 [Links to an external site.](https://laravel.com/)

 <https://www.djangoproject.com/>

 [Links to an external site.](https://www.djangoproject.com/)

 <http://hibernate.org/>

 [Links to an external site.](http://hibernate.org/)

 [https://spring.io/ Links to an external site.](https://spring.io/)

 [Links to an external site.](https://msdn.microsoft.com/en-us/library/aa480021.aspx)

 <https://msdn.microsoft.com/en-us/library/aa480021.aspx>

* [Links to an external site.](https://msdn.microsoft.com/en-us/library/aa480021.aspx)

**Assessment Tools and Mark Distribution (Tentative)**

* Quizzes 15%
* Midterm Exam 25%
* Final Exam 30%
* Project 30%

**Grading Policy**

As per NSU grading policy available at

<http://www.northsouth.edu/academic/grading-policy.html>

[Links to an external site.](http://www.northsouth.edu/academic/grading-policy.html)