

**CCY3101 Software Security****COURSE INFORMATION**

| Prerequisites       | Academic Year & Level |          | Teaching Methods |          |            | Credit Hrs. |
|---------------------|-----------------------|----------|------------------|----------|------------|-------------|
|                     | Year                  | Semester | Lecture          | Tutorial | Laboratory |             |
| CCY2001 and CSE2001 | 3                     | 5        | 2                | --       | 2          | 3           |

**COURSE AIM**

To get the students to:

- Understand software security concepts
- Understand software security problems and threats to security.
- Experiment with and measure software security through estimation and metrics
- Understand secure software architecture and software security assurance
- apply secure software development life cycle
- Experiment with and apply software security and testing
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**COURSE WEEKLY CONTENTS**

- 1 Course Introduction and Syllabus discussion
- 2 Software Security Concepts
- 3 Software Security Problems
- 4 Threats to Security
- 5 Software Security Metrics
- 6 Software Security Estimation
- 7 7th week Assessment
- 8 Secure Software Architecture
- 9 Software Security Assurance
- 10 Secure Software Development Process
- 11 Software Security Testing
- 12 12th week Assessment
- 13 Implementing Security Testing: Case Study
- 14 Implementing Software Security: Case Study
- 15 Projects Presentations

**STUDENT GRADING & ASSESSMENT**

| Weeks    | Exams | Assign. | Quizzes | Reports    | Present. | Lab. | Total |
|----------|-------|---------|---------|------------|----------|------|-------|
| 1 to 7   |       |         |         | 30         |          |      | 30    |
| 8 to 12  |       |         |         | 20         |          |      | 20    |
| 13 to 15 |       |         |         | 10         |          |      | 10    |
| 16 or 17 |       |         |         | Final Exam |          |      | 40    |

**REFERENCES**

**Textbook** Suhel Ahmad Khan et al., Software Security: Concepts and Practice, CRC Press