**Course Outline**

**Course: SWE413 Software Engineering and Cyber Law**

**Teaching Staff:**

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| --- | --- |
| **Category** | **Description** |
| Corse Teacher with Section and Semester | Kaushik Sarker, Fall 2017 |
| Course Code | SWE 413 |
| Title | Software Engineering and Cyber Law |
| Credit | 3 |
| Total Cr. Hour | 41 |
| Class room | To be announced later. |
| Class time | To be announced later. |
| Office Hour | To be announced later. |
| Consultancy Hour | To be announced later. |
| Email | kaushik.swe@daffodilvarsity.edu.bd |
| Google Classroom Code | 09n8f34 |

**Course Objectives (CO’s):**

1. Students would learn the concept of cyber space and cyber crime from the global perspective.
2. Should be able to develop the moral and ethics from the social and personal point of view.
3. Should be able to develop and create act for the cyber crimes with proper punishment and learn the proper approach to include it to the constitution.
4. Able to find out and analyse the crimes given in a specific scenario.
5. Learn about intellectual property right and the law regarding it.
6. Use the security in the software and web and learn the connection of cyber law associate with it.

**Prerequisite:** SSWE322: Software Security

**Learning Outcomes (LO’s):**

|  |  |
| --- | --- |
| No. | Outcomes (LO’s) |
| **Knowledge** | |
| 1 | Describe the concept of cyber space and cyber crime |
| 2 | Identify the approaches to create cyber law for a nation |
| 3 | Learn the ICT act of Bangladesh |
| 4 | Describe the concept of intellectual property right |
| 5 | Know about the software security issues and apply the Intellectual property right and cyber law to it. |
| **Skill** | |
| 6 | To be able to analyze and find the crimes from a scenario and find the approximate punishment |
| 7 | To be able to imply security in software and in network communication considering the cyber laws |
| **Role in Context** | |
| 8 | Inspire others to reduce cyber offence increase awareness in the society. |
| **Attitude** | |
| 9 | To be able to develop moral and ethical attitude against cyber offences |

**Course Description:**

Study of cyber law in association with the software engineering will create a basic foundation of the knowledge of cyber offences in the cyber space. This course includes the knowledge of ICT ACT of Bangladesh. In relation to the SDLC (Software Development Life Cycle) students will be able to study the Cyber law and Intellectual property right. Towards the end, student will be learning the security issues in software and communication and the enactment of laws associated with it.

**Course Methodology:**

1. Class size of 40-45 Students
2. Classroom with a projector, a computer and a white marker board
3. Students may need to attend seminar and workshop during the turner of the course

**Assessment:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| No. | Assessment Methods | Weighing | | | Weighing | | Remarks |
| In Class | On -line |
| 1 | Continuous Assessment | 35% | 7% | Attendance | 7% | 0% | To measure how well students have learned throughout the semester. |
| 15% | Quiz (Min 3 Quizzes) | 10% | 5% |
| 8% | Presentation | 0% | 8% |
| 5% | Assignment | 0% | 5% |
|  | | | | | | | |
| 2 | Examinations | 65% | 25% | MID term exam | 25% | 0% | To measure how far students have achieved the learning outcomes. |
| 40% | Final Exam | 40% | 0% |

**Mapping of Assessment with Learning Outcomes (LO’s):**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| No. | Learning Outcome | Course Assessment Methods | | | | | |
| (LO’S) | | Attendance | Quiz | Presentation | Assignment | MID | FINAL |
| 1 | Describe the concept of cyber space and cyber crime | x | x |  | x |  |  |
| 2 | Identify the approaches to create cyber law for a nation | x | x |  | x |  |  |
| 3 | Learn the ICT act of Bangladesh | x | x |  | x | x | x |
| 4 | Describe the concept of intellectual property right | x | x |  |  | x | x |
| 5 | Know about the software security issues and apply the Intellectual property right and cyber law to it. | x | x |  | x | x | x |
| 6 | To be able to analyze and find the crimes from a scenario and find the approximate punishment | x | x |  |  | x | x |
| 7 | To be able to imply security in software and in network communication considering the cyber laws | x |  | x | x | x | x |
| 8 | Inspire others to reduce cyber offence increase awareness in the society. |  | x | x | x |  |  |
| 9 | To be able to develop moral and ethical attitude against cyber offences |  |  | x | x |  |  |

**Rubrics:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Weighing | Letter Grade | Category | Description |
| 1 | 80% | A+ | Outstanding | Very Strong evidence of having achieved all the LO’s and demonstration of exceptional mastery on cyber crime or offences in relation to software engineering.  Able to develop complete/ new law for new crime. |
| 2 | 75% | A | Excellent | Strong evidence of having achieved all the LO’s and demonstration of mastery on cyber crime or offences in relation to software engineering.  Able to develop complete/ new law for new crime. |
| 3 | 70% | A- | Very Good | Evidence of having achieved 90% of the LO’s with good understanding of cyber crime or offences in relation to software engineering.  Able to develop complete/ new law for new crime. |
| 4 | 65% | B+ | Good | Evidence of having achieved 80% of the LO’s with understanding of cyber crime or offences in relation to software engineering.  Able to clearly modify an existing law for crime. |
| 5 | 60% | B | Satisfactory | Evidence of having achieved 70% of the LO’s with basic understanding of cyber crime or offences in relation to software engineering.  Able to modify an existing law for crime. |
| 6 | 55% | B- | Above Average | Evidence of having achieved 60% of the LO’s with minimal understanding of cyber crime or offences in relation to software engineering.  Able to minimally modify an existing law for crime. |
| 7 | 50% | C+ | Average | Evidence of having achieved 50% of the LO’s with minimal understanding of cyber crime or offences in relation to software engineering.  Able to poorly modify an existing law for crime. |
| 8 | 45% | C | Below Average | Evidence of having achieved 40% of the LO’s with minimal understanding of cyber crime or offences in relation to software engineering.  Not able to modify an existing law for crime. |
| 9 | 40% | D | Pass | Evidence of having achieved 30% of the LO’s with little understanding of cyber crime or offences in relation to software engineering.  Not able to modify an existing law for crime. |
| 10 | <40 | F | Fail | Evidence of having achieved below 30% of the LO’s with very little understanding of cyber crime or offences in relation to software engineering.  Not able to modify an existing law for crime. |

**Teaching Method (TM):**

|  |  |  |  |
| --- | --- | --- | --- |
| No. | **Method Name** | **Description** | **Medium Used** |
|  | **Authority, or lecture style** | This traditional, formal approach to teaching is sometimes referred to as “the sage on the stage.” | **White board, marker** |
|  | **Demonstrator, or coach style** | This style retains the formal authority role while allowing teachers to demonstrate their expertise by showing students what they need to learn | **projector, PC, presenter, speaker system** |
|  | **Facilitator, or activity style** | This approach encourages teachers to function as advisors who help students learn by doing. | **VIP card, poster, colorful Marker, handouts** |
|  | **Developer, or group style** | This style allows teachers to guide students in a group setting to accomplish tasks and learn what works or doesn’t. | **Use card and poster and presentation in a group** |
|  | **Hybrid, or blended style** | This approach incorporates different aspects of the various styles and gives teachers flexibility to tailor a personal style that’s right for their coursework and students | **Use multiple approaches together** |
|  | **Virtual Learning** | Use Google classroom or Learning feedback system to provide distant learning to students. | **Use internet, computer network, web site** |

**Mapping of Lesson plan to the Learning Outcomes and Teaching Methods:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No. | Session | Topic/ Content | Teaching Method  (TM) | Learning Outcomes (LO’s) |
| 1 | Session 1 | **Cyber offence: Global perspective**  Class 1: Definition, types of crimes  Class 2: Approaches, listing of offences  **Introduction to Google Classroom and to the course** | 1, 3, 5, 6 | 1, 2 |
| 2 | Session 2 | **Moral and Ethics**  Class 1: Ethics in Business  Class 2: To do’s for computer professional  **Quiz 1, In class quiz** | 1 | 8,9 |
| 3 | Session 3 | **ICT ACT Bangladesh**  Class 1: ACT 2006  Class 2:Discussion on ACTs 2006  **Assignment 1 in Google** classroom | 1,2, 5, 6 | 3,5,6 |
| 4 | Session 4 | **Weaknesses of ICT ACT**  Class 1: Weakness Criteria  Class 2: Amendment for weaknesses  **Quiz 2, In class quiz** | 1,3 | 3,5,8 |
| 5 | Session 5 | **Intellectual Property Right**  Class 1:Definition, types  Class 2: patents and it’s rights | 1,2 | 4,5 |
| 6 | Session 6 | **Intellectual Property Right II**  Class 1: Trademark and it’s rights  Class 2: copyright and it’s rights, SDLC and IPR  Class 3: Review of contents for Midterm Exam | 1,2 | 4,5,9 |
| 7 | Session 7 | **Exams**  Class 1: **Assignment 2 in Google classroom and its discussion.**  **Midterm Examination** | 1, 5, 6 | 6,7 |
| 8 | Session 8 | **Misuse of internet in workplace**  Class1: Internet misuse  Class 2: Common hacking tactics | 1, 3 | 5,8 |
| 9 | Session 9 | **Ecommerce security**  Class 1: Security requirements  Class 2: Security in transactions | 1,3 | 7,8 |
| 10 | Session 10 | **Security of data**  Class 1: Methods of data security  Class 2: Encryption, Symmetric and Asymmetric Encryption  Class 3: Cipher, Decipher | 1,3 | 7 |
| 11 | Session 11 | **PKI**  Class 1: Infrastructure  Class 2: Procedure, topic for presentation discussion and submission procedure  Class 3: Review of contents for Final Exam  **Quiz 3 in Google classroom.** | 1, 5, 6 | 3,6,7 |
| 12 | Session 12 | **Exams**  **Preparation of Presentation**  **Final Examination** | 1,5, 6 | 6,7 |

**Reference:**

1. Booklet provided by Course teacher
2. Resources (Slides, PDF, Documents) provided in Google classroom

**Disclaimer:**

While every effort has been made to ensure that the information contained in this document is accurate, the information is subject to change. Changes will be notified in class and/or tutorials, via Google Classroom or email. Students are encouraged to check Google Classroom or email for any changes. It is your responsibility to be informed.