



## Department of Computer Applications National Institute of Technology, Tiruchirappalli

1. Course Outline			
<b>Course Title</b>	Information Security Lab		
<b>Course Code</b>	CA708		
<b>Department</b>	CA	<b>No. of Credits</b>	2
<b>Programme</b>	MCA	<b>Lab Hours</b>	3
<b>Course Type</b>	Laboratory	<b>Course Teacher</b>	Dr. P.J.A. Alphonse
<b>Pre-requisites</b>	CA 713, Basics on Networks, Operation Systems and Database		
<b>E-mail</b>	alphonse@nitt.edu	<b>Telephone No.</b>	0431-2503742
<b>Course Type</b>	Lab Course	<b>Office</b>	Lyceum 107
<b>Course Page</b>	<a href="http://egov.nitt.edu/moodle/course/view.php?id=46">http://egov.nitt.edu/moodle/course/view.php?id=46</a>		

### 2. Course Content

The Information Security Lab deals with the study and analysis of security in computers. It also explores Cryptography, Forensics, Network, Application and Data security.

### 3. Course Objectives

1. To experiment the models of information security
2. To study and analyze cryptographic and forensic methods
3. Analyze and simulate the network security and application security
4. Explore the nature and logic behind security threats on the web as an ethical hacker

### 4. Course Learning Outcomes (CO)

1. Identify the information security models and their characteristics
2. Analyze the different types of cryptographic and forensic methods
3. Study the network security issues
4. Discover the layers of application security
5. Identify different threats and suggest fixes.

5. Course Outcome (CO)	Aligned Programme Outcome (PO)											
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Identify information security models and their characteristics	H	H	A	A	A	H	H	A	L	H	A	H
Analyze the different types of cryptographic and forensic methods	H	H	A	A	H	A	H	A	L	L	A	H
Study the network security issues	H	H	H	A	H	A	H	L	L	H	H	H
Discover the working of application security	H	H	H	A	H	A	H	L	L	H	H	H
Identify different threats and suggest fix	H	A	H	A	H	H	H	H	L	H	H	H

### Exercise

The lab exercise will be given to the students in prior to the Lab session.

### 6. Lab Exercise

Week	Topic
1.	Physical security
2.	Access security
3.	SDLC Security
4.	Cryptography
5.	Testing and exploits
6.	Steganography and Biometrics
7.	Network security
8.	Application Security
9.	Tools
10.	Breaches Review

The assessment details for this course are given below. The assessment will be done for a total of 100 marks.

<b>7. Course Assessment Methods – Theory</b>					
<b>Sl. No.</b>	<b>Mode of Assessment</b>	<b>Nature</b>	<b>Tentative Schedule</b>	<b>Duration in Min.</b>	<b>Weightage (%)</b>
1.	Test	Formative	4 <sup>th</sup> week	60	10
2.	Test	Formative	8 <sup>th</sup> week	60	15
3.	Lab activity	Periodic	Lab duration	NA	50
4.	End Semester Exam	Summative	11 <sup>th</sup> week	120	25
Total					100

### **8. Lab Survey**

- The students may give their feedback at any time to the course Teacher, which will be duly addressed.
- The students may also give their feedback during Class Committee meeting and fill up the feedback form at the end of each test.

### **10. Course Policy (including plagiarism, academic honesty, attendance, etc.)**

#### **Lab Behavior**

- Ensure that the course atmosphere, both in the Lab and discussions outside the Lab with Teacher, is conducive for learning. Participate in discussions but do not dominate or be abusive. Be considerate of your fellow students and avoid disruptive behavior.

#### **Exam policy**

- Each student is required to take all exams at the scheduled times. All exceptions must be cleared with the professor prior to the exam time. Exams missed for insufficient reason and without being cleared with the professor prior to the exam time will be assigned a score of zero.

#### **Assignments**

- All assignments are due on or before the mentioned date and time and is to be uploaded on the Lab moodle site.

#### **Late assignments**

- Late submissions are not accepted.

#### **Plagiarism**

- The students are expected to come out with their original work on term activity, assignments and tests/examinations. If found to be plagiarized, it will be assigned a score of zero.

#### **Attendance**

- Attendance is expected. If a student misses a Lab, the student is still responsible for the

material that is studied and for completing any assignments by the due date that may have been handed out by the instructor during class.

### **Academic Honesty**

- i) No type of academic dishonesty will be tolerated. If the student is caught cheating (on the assignments, exams, or project) the punishment will be the most severe penalty allowed by the Institute policy.
- ii) Possession of any electronic device, if any, found during the test or exam, the student will be debarred for 3 years from appearing for the exam and this will be printed in the Grade statement/Transcript.
- iii) Tampering of MIS records, if any, found, then the results of the student will be withheld and the student will not be allowed to appear for the Placement interviews conducted by the Office of Training & Placement, besides (i).

### **11. Additional Course Information**

- The students can get their doubts clarified during Lab.
- Prior request for appointment through mail, stating the subject matter to be discussed, is required to fix a time for discussion of subject matter outside class. Appointment time will be communicated through reply mail.

### **For Senate's Consideration**



(Dr. P.J.A. Alphonse)

Course Faculty



(Dr. Michael Arock)

PAC Chairperson



( Dr. S. R. Balasundaram)

Head