**Lectures for the course: Information and System Security (IT 60112)**

**Week 1**

**Lecture 1 – 06/01/2017**
- Introduction to the course
- Confidentiality, integrity and availability
- Evaluation Guidelines
- Term paper and Term project guidelines

**Week 2**

**Lecture 2 – 11/01/2017**
- Threats and attacks
- Policy and mechanism
- Assumptions and trust
- Assurance
- Goals of security
- Operational issues
- People issues

**Lecture 3 – 12/01/2017**
- Protection systems
- Access control matrix
- Access control by Boolean expression evaluation

**Lecture 4 – 13/01/2017**
- Own right, copy right
- HRU model

**Week 3**

**Lecture 5 – 18/01/2017**
- State transition in HRU model

**Lecture 6 – 19/01/2017**
- State transition in HRU model
- Leakage of right
- Safety in HRU model
- Undecidability result

**Lecture 7 – 20/01/2017**

- HRU Model - conclusions
- Take Grant protection model

**Week 4**

**Lecture 8 – 25/01/2017**

- Safety in TGP

**Lecture 9 – 27/01/2017**

- TGP – Summary
- Bell-LaPadula Model

**Week 5**

**Lecture 10 – 01/02/2017**

- Bell-LaPadula Model

**Lecture 11 – 02/02/2017**

- Biba’s model
- Lipner’s model

**Lecture 12 – 03/02/2017**

- Class test held

**Week 6**

**Lecture 13 – 08/02/2017**

- Lipner’s model
- Clark-Wilson’s model

**Lecture 14 – 09/02/2017**

- Chinese Wall security policy
- Class test scripts shown and feedback given
Week 7

- Mid sem exam held

Week 8

Lecture 15 – 22/02/2017

- Authentication
- Password based authentication
- Dictionary attacks

Lecture 16 – 23/02/2017

- CAPTCHAs
- One time passwords

Lecture 17 – 24/02/2017

- Kerberos

Week 9

Lecture 18 – 01/03/2017

- Kerberos realms and multiple kerberi
- Secure system design principles

Lecture 19 – 02/03/2017

- Secure system design principles
- Mid sem scripts shown and feedback given

Lecture 20 – 03/03/2017

- RBAC
- RBAC0, 1, 2, 3