TALLINN UNIVERSITY OF TECHNOLOGY

Information and Cyber Security Assurance in Organisations

ITX8090

Self-introduction

- Education
- Work experience
- Training
- Teaching

Audience and expectations

Expectations for the course?

1.
2.
3.
4.
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10.

Course

Outline

- Cyber security as a process;
- IS life cycle;
- Choosing security measures based on security model/standard/best practice;
- Graded security model;
- Security expences and optimization;
- Cooperation at organization/state/international level.

ois.ttu.ee

Course

Knowledge

- Terminology, security problem description
- Understand security as a process
- What may work for security governance
- Security economic aspects and cost optimization

ois.ttu.ee

Evaluation

Evaluation criteria

1) Homework assignments The course contains several obligatory homework assignments. Assignments are supervised and graded during practice times. Maximum summary points for all assignments: 20.
2) Exam In order to pass the course, each student has to pass the written exam. Maximum points: 80.
3) Final evaluation The final grade for each student is calculated using a summary score of the homework assignments and the exam, ie. 20% for the homework, 80% for the exam.

Evaluation

The grades are assigned as follows:

score >= 90 -- grade 5 (excellent)

80 < score ≤ 90 -- grade 4 (very good)

70 < score ≤ 80 -- grade 3 (good)

60 < score ≤ 70 -- grade 2 (satisfactory)

50 < score ≤ 60 -- grade 1 (pass)

score < 50 -- grade 0 (failed)

Introduction

Information and Cyber Security Assurance in Organisations

> **Assurance** service is an independent professional service with the goal of improving the information or the context of the information so that decision makers can make more informed, and presumably better, decisions. Assurance services provide independent and professional opinions that reduce the information risk (risk that comes from incorrect information).

www.wikipedia.org

IT risk and control concept

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Legal obligations for IT security, data protection, business continuity (for example data protection act, emergency act, etc …) and internal goals.

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Business profile

- Critical business processes
- Critical information assets

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- Critical business processes
- Critical information assets

IT profile
Critical information systems
Critical IT assets

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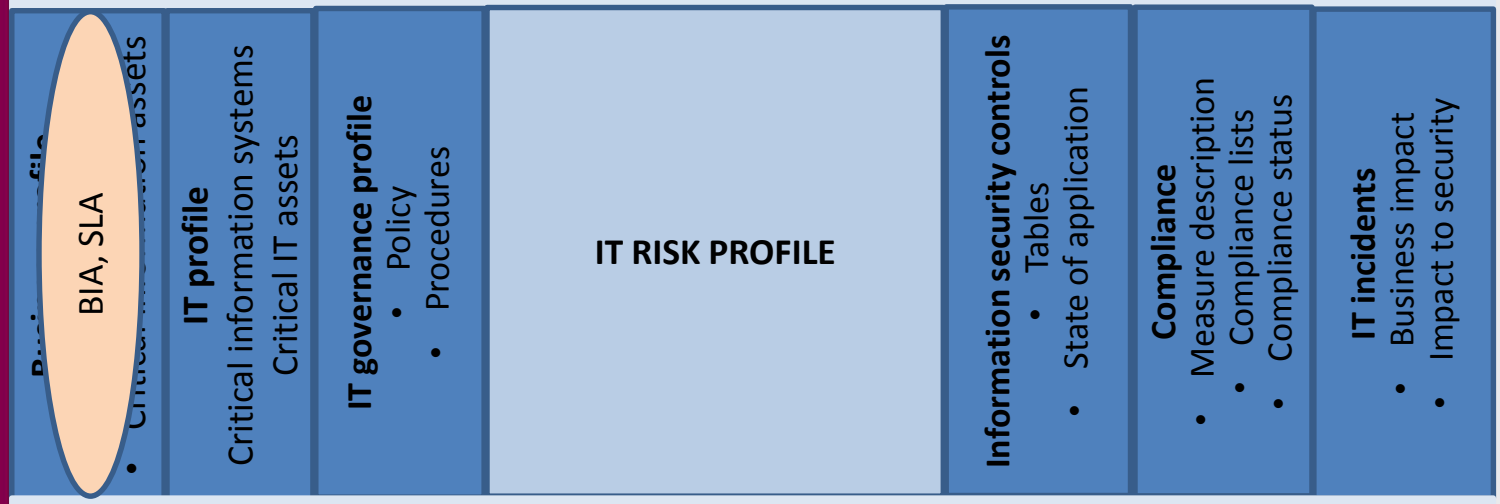

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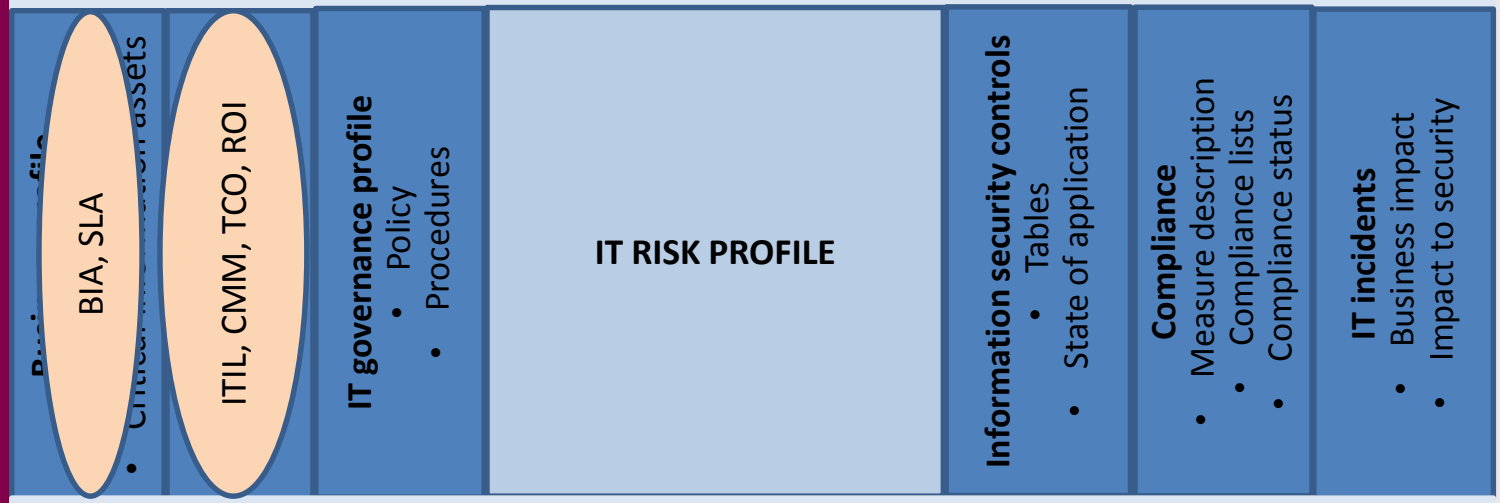

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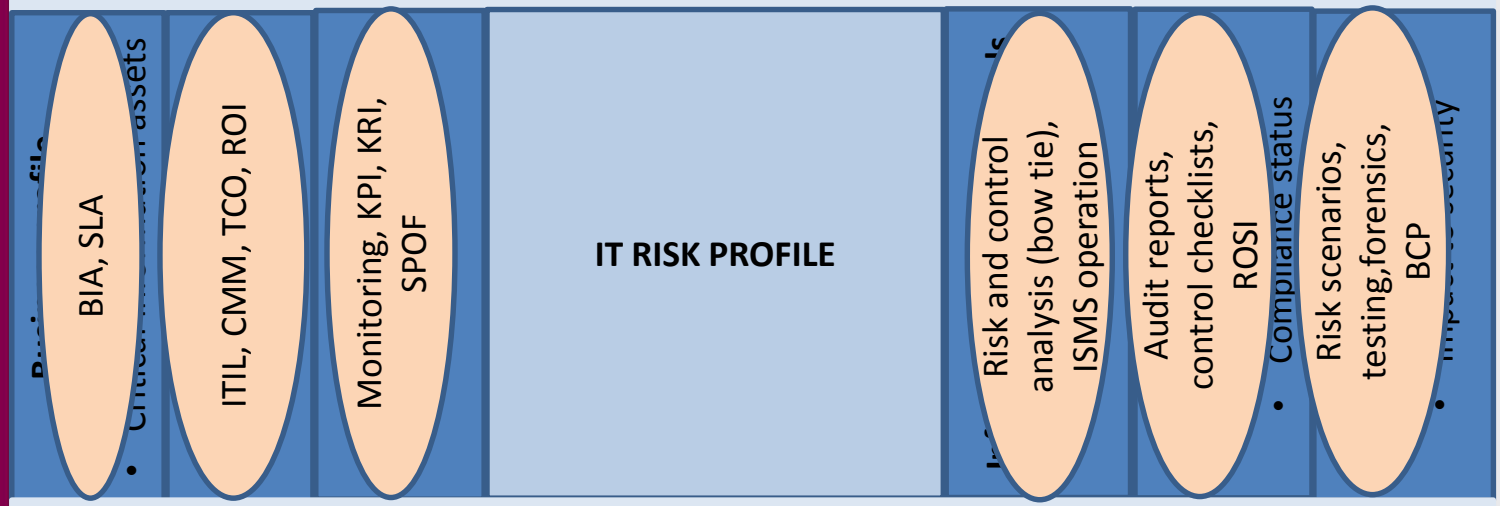

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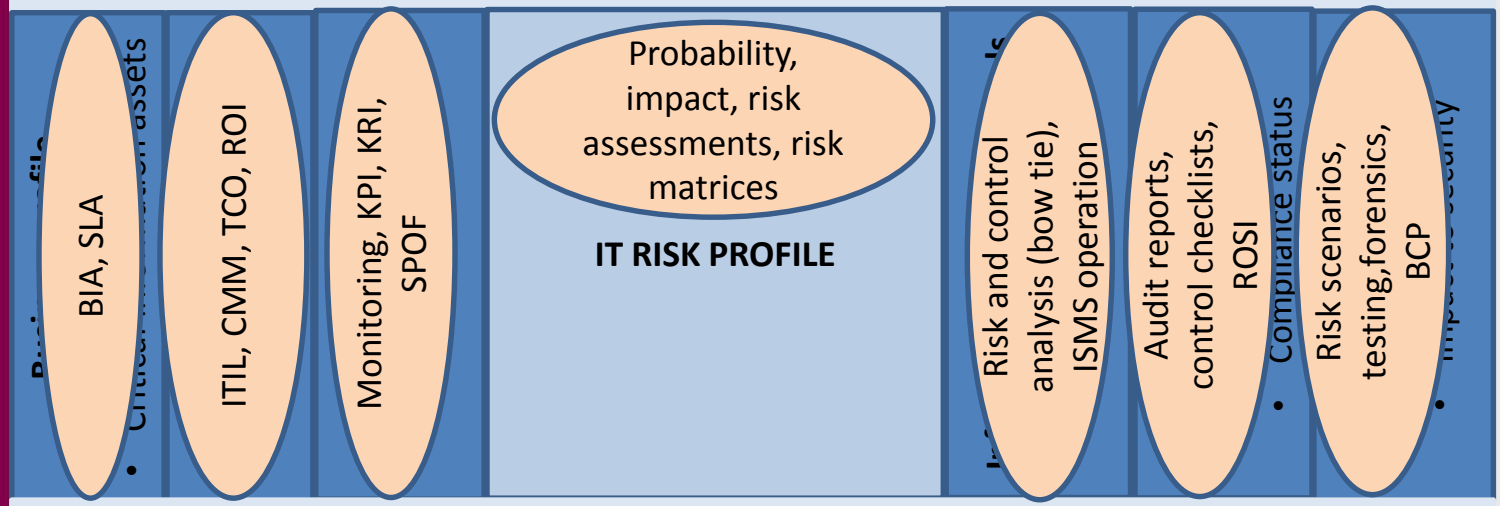

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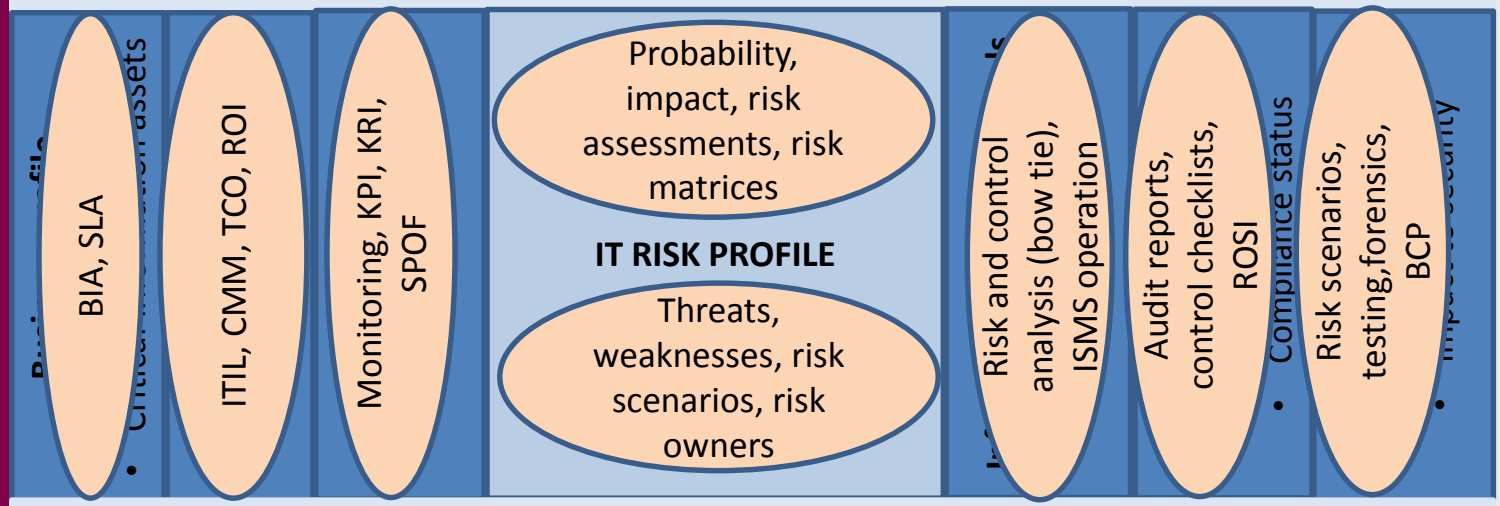

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Course themes

- IT risk assessment and management standard ISO/IEC 27005;
- IT risk assessment concepts and methods;
- Identifying and mapping the information assets and IT assets;
- Analysis of threats and vulnerabilities;
- Risk assessment and risk scales, risk matrix, residual risk;
- Information security standards ISO/IEC 27001 and ISO/IEC 27002;
- Information security policy;
- Planning the application of information security measures;
- Applying baseline security (e.g. ISKE) in public sector;

Course themes

- IT risk management methods (based on best practices);
- IT risk management organization and activities;
- Using the bow tie method (root-cause) to analyse risks with controls;
- Preventive, detective and corrective measures to achieve information security;
- Control and compliance issues of information security;
- Planning IT continuity and recovery (based on testing);
- Business continuity (BC) concept and terms;
- Business impact (BI) analysis and business continuity planning;
- Recovery objectives and recovery plans;
- Business continuity testing.

Course plan

Work table (constantly under construction)

Practice

Key roles in information/cyber security

Exercise 1

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