Munich University of Applied Sciences

Software Security 2025

Seminar Paper Specification

Deadline for submission: 4 July 2025, 12:00pm.

Instructions for the seminar paper:

Write a paper between 10 to 15 A4 pages, 12 point font size, with 1.5 line spacing. The paper must be submitted in PDF format. Choose any three of the practical exercises you completed during the semester during the practical component of the course. These topics can also be the same as the lecture topics. Clearly identify the three topics you chose. Combine the theme/topic of all three practicals/topics, and write a paper that will make use of the three topics so as to come up with some new or improved idea. To help you, I will give an example below. You may even use this example to write your paper, or choose something different.

Example:

Suppose I choose the three topics: Cryptography in Software Security, Memory Safety Issues, and Mobile Application Security. Then I might come up with some idea of how to use cryptography in mobile applications to defend against in their memory.

The idea need not be novel. That means, you do not have to have a specific solution to this, but a simple theoretical proposal is also acceptable. If you do have some practical solution to it, you will get bonus marks for it. The following grading scheme will be used:

Marking Scheme (50 Marks Total)

1. **Introduction and Background (10 Marks)**

   o **Relevance to the Chosen Topics (5 Marks):**

      ▪ Clear identification of the three practical/lecture topics chosen.

      ▪ Brief and accurate explanation of each topic with proper context.

   o **Logical Flow and Clarity (5 Marks):**

      ▪ Introduction flows logically and sets the stage for the rest of the paper.

      ▪ Well-structured background that connects the three topics.

2. **Theoretical Proposal or Idea (15 Marks)**

   o **Creativity and Originality (5 Marks):**

      ▪ Demonstrates effort to combine the three topics in a thoughtful and innovative way.

      ▪ Idea need not be novel but must show an attempt at synthesis.

   o **Feasibility and Explanation (5 Marks):**

      ▪ Logical explanation of the proposal or idea.

- Shows understanding of how the chosen topics interrelate.
  - o **Technical Accuracy (5 Marks):**
    - Sound understanding of the technical components involved (e.g., cryptography, firewalls, malware).
    - Concepts are applied correctly within the proposal.

3. **Analysis and Integration of Topics (10 Marks)**

   - o **Depth of Analysis (5 Marks):**
     - Critical and in-depth discussion of how the three topics integrate to solve or propose a new idea.
     - Shows understanding beyond surface-level explanations.
   - o **Evidence of Research/Examples (5 Marks):**
     - Incorporates relevant research, examples, or case studies to support arguments.
     - Proper citations where necessary (APA/IEEE style or as instructed).

4. **Practical/Technical Component (5 Marks)** *(Bonus Marks Possible)*

   - o **Theoretical vs. Practical Contribution (3 Marks):**
     - If purely theoretical, marks awarded for clarity and depth.
     - If a practical solution or prototype is provided, evaluate:
       - Functionality (e.g., does it demonstrate the idea?)
       - Effort and implementation clarity.
   - o **Bonus Marks for Practical Demonstration (Up to 2 Marks):**
     - Fully working solution or significant implementation effort earns additional credit.

5. **Conclusion and Recommendations (5 Marks)**

   - o **Summarization of the Proposal (3 Marks):**
     - Clear summary of the main idea.
   - o **Future Work and Improvements (2 Marks):**
     - Suggestions for further development or potential challenges.

6. **Structure, Presentation, and Writing Quality (5 Marks)**

   - o **Formatting and Organization (2 Marks):**
     - Adheres to submission guidelines (10-15 pages, 12-point font, 1.5 spacing, PDF format).
     - Proper headings, subheadings, and logical flow of ideas.

- o **Grammar, Style, and Language (3 Marks):**
    - Writing is clear, concise, and free of grammatical or spelling errors.
    - Academic tone maintained throughout.

Summary Table:

Criterion	Marks
Introduction and Background	10
Theoretical Proposal or Idea	15
Analysis and Integration of Topics	10
Practical/Technical Component	5 (+2)
Conclusion and Recommendations	5
Structure, Presentation, and Writing	5
Total	**50**