

# Programming 5

## Introduction

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# Programming 5

- ECTS

<https://bamaflexweb.kdg.be/BMFUIDetailxOLOD.aspx?a=147427&b=1&c=2>

- 6 ECTS credits

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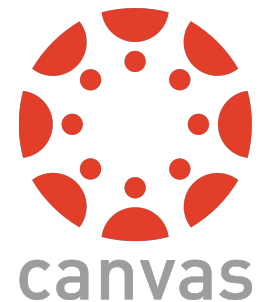
MS Teams 

- Application of software development principles, practices and APIs in a project
  - Spring (REST / Security / Testing)
  - npm and webpack
  - ... and more (profiles, JPA fine tuning, ...)

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# Programming 5

- Lectures:
  - Introduction and theory of new concepts
  - Live demonstrations and application of these concepts
- Canvas:
  - Slides
  - Project and assignments
  - Links to sample code



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# Programming 5

- Evaluation (100%):
  - **Examination Interview** based on the submitted project
  - During the exam period **at the end of term 4** (after 12th week)



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<b>Week 1</b>	
<b>Week 2</b>	
<b>Week 3</b>	
<b>Week 4</b>	
<b>Spring break</b>	
<b>Week 5</b>	
<b>Week 6</b>	
<b>Exam week</b>	
<b>Week 7</b>	Feedback workshop
<b>Easter holidays</b>	
<b>Easter holidays</b>	
<b>Week 8</b>	
<b>Week 9</b>	Project work
<b>Week 10</b>	
<b>Week 11</b>	
<b>Week 12</b>	
<b>Study week</b>	
<b>Exam</b>	<b>Examination Interview (100%)</b>

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# Is there a policy on AI tools?



deepseek

- **Use with care**

- You're required to follow Programming 5 guidelines and best practices

- **Failure to explain AI code**

- What does this code do?
- Why did you use this code in this specific instance?

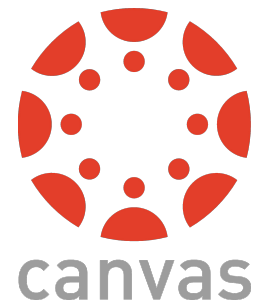
Which added value do **you** bring? Are employers better off just deploying AI-generated code?

- **Tip:** try to use AI-generated code as little as possible

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# Schedule for term 3

Week 1	<b>Refactoring</b> <ul style="list-style-type: none"><li>• Setup and Refactoring</li><li>• JPA best practices</li></ul>
Week 2	<b>Web API</b> <ul style="list-style-type: none"><li>• REST and AJAX</li><li>• Implementation using Spring Framework</li><li>• Frontend: fetch API</li></ul>
Week 3	
Week 4	<b>Security</b> <ul style="list-style-type: none"><li>• Form login, cookies, CSRF, ...</li><li>• Implementation using Spring Framework</li><li>• Users &amp; roles</li></ul>
Week 5	
Week 6	<b>Testing</b> <ul style="list-style-type: none"><li>• Integration tests (repositories + services)</li><li>• Spring profiles &amp; seeding strategies</li></ul>



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# Schedule for term 4

Week 7	<b>Feedback workshop</b>
Week 8	<b>Testing</b> <ul style="list-style-type: none"><li>• Integration tests (MockMvc)</li><li>• Testing with Spring Security</li><li>• Code coverage</li></ul>
Week 9	<i>Project work</i>
Week 10	<b>Testing</b> <ul style="list-style-type: none"><li>• Unit tests</li><li>• Continuous integration</li></ul>
Week 11	<b>Frontend</b> <ul style="list-style-type: none"><li>• npm and webpack</li><li>• Gradle integration</li></ul>
Week 12	

