

UNIVERSITY OF TWENTE.

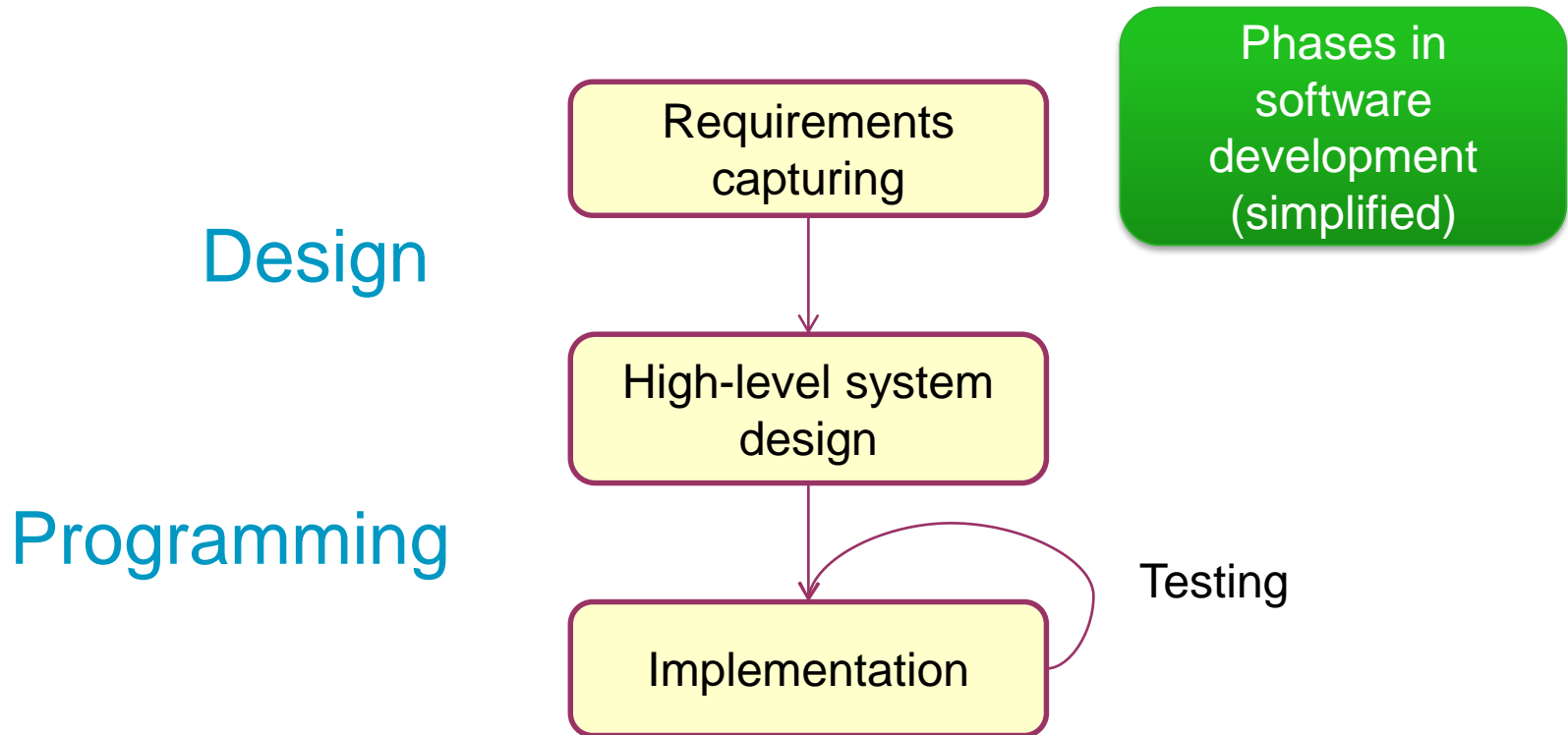
TCS/BIT Module 2 “Software Systems” Information for AT minor students

Klaas Sikkel

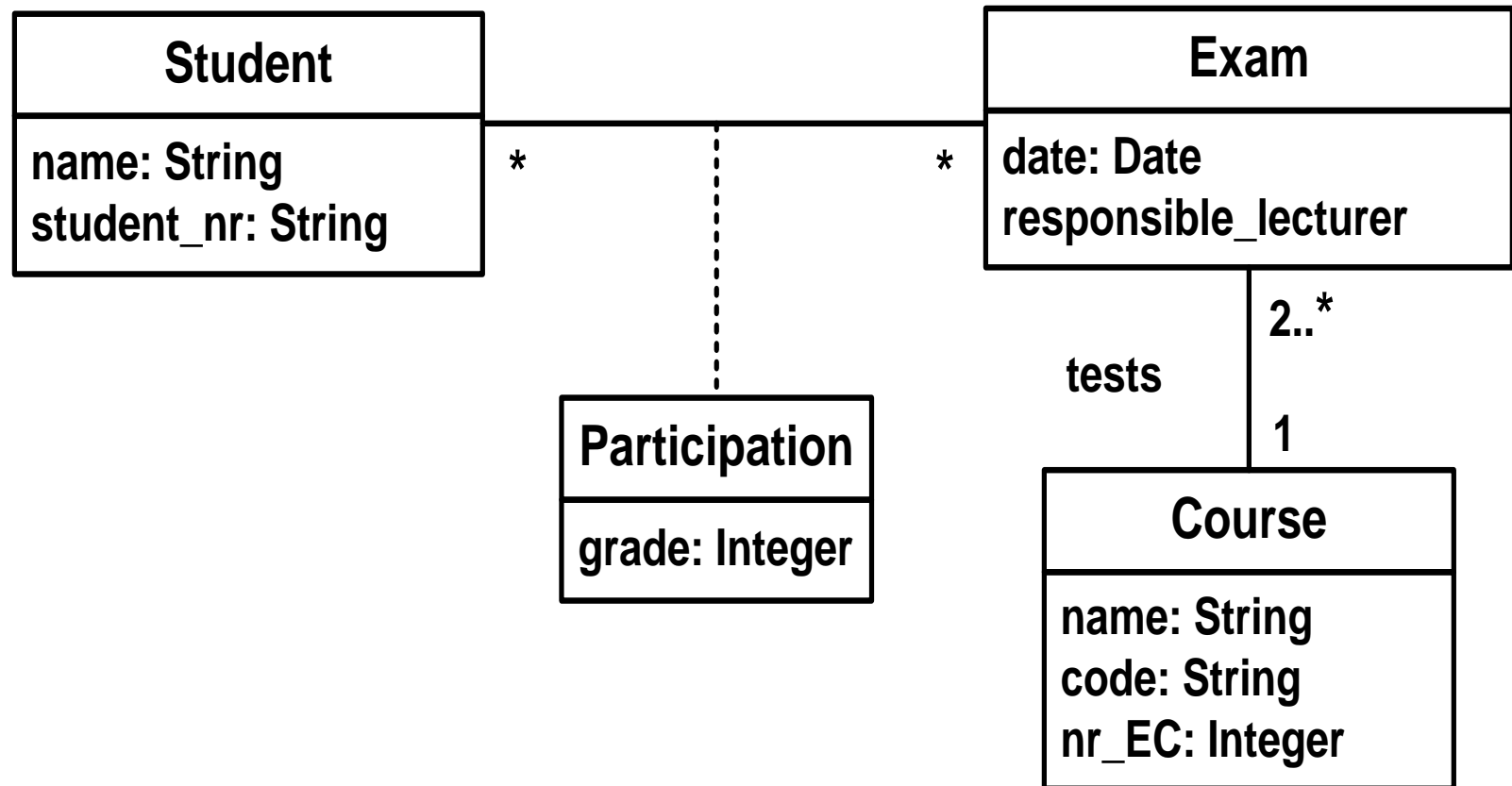
15 October 2018

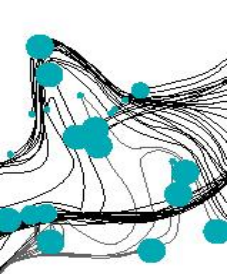


Why combine design and programming?



Design: Unified Modeling Language

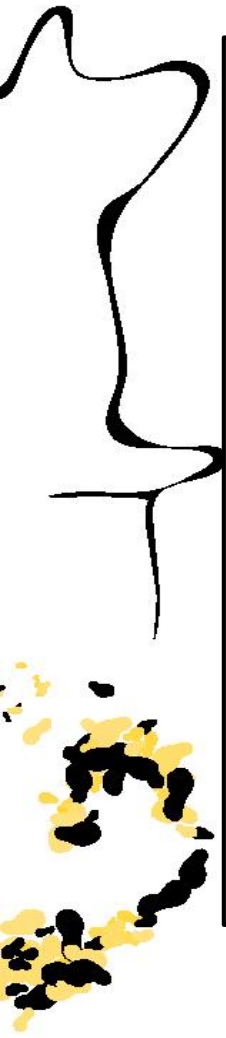




Programming in Java

```
public class DoublyLinkedList<Element> {  
    public class Node {  
        public Node(Element element) {  
            this.element = element;  
            this.next = null;  
            this.previous = null;  
        }  
  
        private Element element;  
        public Node next;  
        public Node previous;  
  
        public Element getElement() {  
            return element;  
        }  
    }  
}
```

...





Module contents

- Design thread (4 EC)
 - Includes Academic Skills:
self-management; project management & planning
 - Includes Design Project (design for parking house system)
- Programming thread (8 EC)
 - Includes Programming Project
(client/server program to play a board game)
- Mathematics thread (3 EC)
 - For the minor: 'Introduction to Mathematical Analysis' (201400385)

Assessment

	Results	Weight	Minimum	Deadline
Individual {	Intro Math Analysis	1	5.5	
	D-test	1	5.5	Week 5
	P-test	1	5.5	Week 9
	Total Tests	3	5.5	
	D-project	1	5.5	Week 5
	P-project	1	5.5	Week 10
	Total projects	2	-	
	Module total	5	5.5	

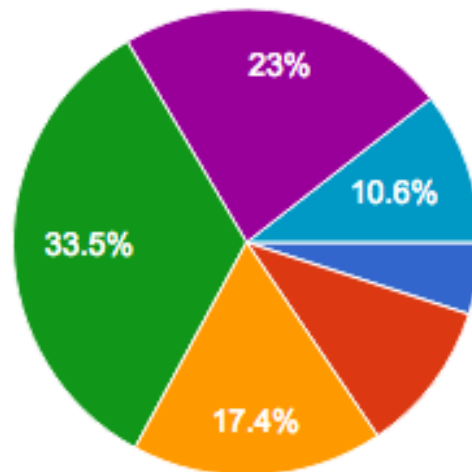
One test grade between 5.0 and 5.5 is allowed, if the average test grade is above 5.5

Fill in the questionnaire!
<https://goo.gl/forms/ijksjdOeYA85Y8c13>

Lab sessions

Programming Experience

161 responses



- Never programmed before
- Written no more than 100 lines of code in one programming language
- Written no more than 100 lines of code, but used multiple programming languages
- Up-to 1000 lines of code in one or more programming languages
- Up-to 10.000 lines of code in one or more programming languages
- More than 10.000 lines of code

Warning

- This is not an easy module!
- High speed, from day 1
- If you have programming experience
 - Focus on concepts and systematic approach
 - No hacking
- If you have no programming experience
 - Be prepared to work hard
 - Don't hesitate to ask when something is not clear to you!

How some students
see this module...



The carrot

- After the module you are able to
 - Design a non-trivial system
 - Implement non-trivial software
 - Play a board game against your own computer player
 - Manage yourself

