## **Teaching Portfolio**

## Peyman Teymoori

#### **Synopsis:**

As it was my passion, I started teaching courses in the early days of my bachelor studies. They included teaching assistant and voluntary teaching of new topics to students. I was the first one at Ferdowsi University of Mashhad who taught/introduced Java, UML, and ASP back then in the late 90s. Considering the early start of teaching as well as introducing new topics at various institutes, the total number of my students in courses so far exceeds 2800 (details in the next section). These include around 67 courses of different types. I have taught a wide variety of courses, and since I had to keep my knowledge up to date for my counseling job, I am comfortable with/open to other courses I have not taught. As an evaluation of my teaching quality, in 2010 when I was a PhD student, I would teach (as the main and only teacher) the Fundamentals of Computer Programming course at University of Tehran (a top university in Iran), and I got the score of 18.5 (in a 20 scale) from student evaluations, while the average score of the school (of around 30 full professors, and 40 associate professors) was 17.5. In terms of course development, I have developed 7 courses from the scratch so far, 3 of them, artificial intelligence, software engineering, and database systems, led to some best-selling books/lectures, with tens of thousands of sold copies over the past years ([b1, b2, b3] in CV). My teaching experiences expand all the bachelor. MSc, and PhD levels, various forms including lectures, seminars, distance education (online), and creating national-wide exams.

Due to 17 years of my work experiences directly in educational institutes, my qualifications go well beyond just teaching and developing courses. For example, I served as the manager and counselor of the computer engineering section at the largest private institute, Kanoon Ghalamchi – Iran, on preparing students for higher educations and national entrance exams. In addition to requiring the knowledge of computer engineering courses at a high level, the job involved close tracking of student development, study program design, exam creations, and the coordination among students and teachers who were designing the materials. I performed the same service for specific courses, especially artificial intelligence and software engineering, at another private institute, Mahestan – Iran. In general, working at private educational institutes in a very competitive market has given me invaluable knowledge of this type of education and a business-oriented mindset.

At University of Oslo (UiO), I have performed a similar service under a pilot program; I have found a gap in the current master study program, and consequently, I wrote a proposal in early 2020 on modifying the master program to fill the gap, which could lead to a more beneficial study for master students, more useful services for our group at UiO – the Network and Distributed Systems group – and some potential benefits for future PhD students. The proposal was accepted and it was run as a pilot program in the department of informatics, UiO under my supervision with the assistance of the administration. Through years of educational work, I have participated in some courses and workshops on pedagogy in my home country. I participated in the pedagogy course at UiO starting on January 2022, which was finished in May 2023.

At Noroff, my teaching endeavors have been strategically focused on bridging the gap between academic knowledge and industry requirements, particularly for graduates seeking to enhance their skills in the rapidly evolving tech landscape. Recognizing the challenges that many graduates face in adapting to the dynamic demands of the tech industry, I have concentrated on designing and delivering courses that not only reinforce foundational concepts but also introduce advanced, practical skills that are immediately applicable in professional settings. My approach has been to integrate real-world scenarios and cutting-edge technologies into the curriculum, thereby equipping students with a blend of theoretical knowledge and practical expertise. This has involved a careful analysis of industry trends and the development of course content that is both current and relevant, ensuring that graduates are not just academically proficient but also industry-ready. Through this process, I have learned the art of upskilling graduates effectively, making them more adaptable and better prepared for the challenges and opportunities in their respective fields in the tech industry.

At University of South-Eastern Norway (USN), I coordinate the Industry Bachelor in IT and IS

program. In addition to this, my role as Program Advisor (Coordinator) of Microsoft Learn for Educators (MSLE) and Program Coordinator of Cisco Networking Academy (NetAcad) at USN allows me to leverage my extensive experience in both teaching and technology. These positions enable me to integrate the latest technological advancements and educational strategies into our curriculum, ensuring that our students are well-prepared for the demands of the modern IT and IS sectors.

My responsibilities at USN include overseeing the curriculum development, ensuring that it aligns with industry standards and incorporates the latest trends in IT and IS. In my role with MSLE, I focus on bringing Microsoft's cutting-edge educational tools and resources into our classrooms, enhancing both the learning experience and the technical skills of our students. This involves not only curriculum development but also organizing workshops and training sessions for both students and faculty to familiarize them with these tools.

As the Program Coordinator of Cisco Networking Academy, I am responsible for integrating Cisco's comprehensive networking and cybersecurity curriculum into our programs. This involves close collaboration with Cisco to stay updated on the latest networking technologies and trends, which I then translate into practical, hands-on learning experiences for our students. My aim is to ensure that our graduates are not just academically proficient but also industry-ready, with a strong grasp of the practical applications of their knowledge in real-world scenarios.

## **Teaching experiences:**

#### **Summary:**

Number of full-length courses: 45
Number of short/crash courses: 22
Number of students: ~2800

Levels (of full-length courses): Bachelor: 42, Master's: 7, Ph.D.: 2 (some courses had

overlaps of bachelor, master's, and/or Ph.D. students)

Topics taught: Computer Programming (Java (6), C++ (3), Python (2), HTML (2), ASP/JSP (1), JavaScript (2), Assembly (4))

Computer Networks (5),

(number in the parenthesis: number of times I have taught

each topic)

(some topics have course

overland)

overlaps)

Artificial Intelligence/Machine Learning (6)

Data Science (1)

Databases (4), Data Warehousing/Big Data (1)

Digital Transformation (1)

Information Systems Management (1)

Cybersecurity Operations (1)
Software Engineering (8)

Compilers (3)

#### Institute: Business School, University of South-Eastern Norway

Title: "Business Intelligence and Data Warehouses" (start date: January 2024)

Role: Main teacherLevel: BachelorType: Physical

Number of participants: 7

- This is a 3<sup>rd</sup> year course offered for the students in the Bachelor of IT and IS. They learn about Data Analytics methods using Python and Data Warehousing using Pentaho and Big Data techniques.

Title: "Object Oriented Programming (OOP) with Java – 2" (start date: January 2024)

Role: Main teacherLevel: BachelorType: Physical

Number of participants: 60

- This is a 2<sup>nd</sup> year course offered for the students in the Bachelor of IT and IS. They learn about advanced topics in OOP using Java such as multi-threading, network programming, and design patterns.

Title: "Digital Transformation" (start date: August 2023)

Role: Main teacherLevel: BachelorType: Physical

Number of participants: 7

This is a 3<sup>rd</sup> year course offered for the students in the Bachelor of IT and IS. They learn about digital transformation methods and important technologies to enable that.

Title: "Object Oriented Programming (OOP) with Java – 1" (start date: August 2023)

Role: Main teacher
Level: Bachelor
Type: Physical

Number of participants: 60

- This is a 2<sup>nd</sup> year course offered for the students in the Bachelor of IT and IS. They learn about beginner topics in OOP using Java such as Java syntax, OOP concepts such as inheritance and polymorphism, and JavaFX.

Title: "Crash Courses in IT" (start date: August 2023 – present)

Role: Main teacher
Level: Bachelor
Type: Physical/Digital
Number of participants: 7

This is a series of crash courses offered to my students in the Industry Bachelor in IT and IS. The goal is to upskill them to be prepared for industry jobs as university study programs are usually not enough for entering the competitive job market. The courses include Python, Docker, Git, CI/CD, AI/ML, and OpenCV. In addition, I offer a wide range of self-paced courses through partnership with Cisco and Microsoft under the programs Cisco Networking Academy and Microsoft Learn for Educators. These include 1) fundamentals of Microsoft Azure, 2) Power BI, 3) Azure AI, 4) Networking Essentials, and 5) Cybersecurity Operations.

Institute: Noroff, Norway

Title: "C++ Bootcamp" (start date: April 2023)

Role: teacher

- Level: Bachelor/Master/Industrial

Type: Physical/DigitalNumber of participants: 7

- Number of lectures: the course will be around 30 hours.

This is a part-time program on C++ including latest standards, and object orientation. The students in the end will be supervised for around two weeks to do a case project as their final

assignment. I have compiled a lecture note ([b4] in CV) for this bootcamp.

Title: "Full-Stack Development with Java" (start date: January 2023)

- Role: teacher

Level: Bachelor/Master/Industrial

- Type: Physical/Digital

- Number of participants: 30.

- Number of lectures: the course will be around 100 hours

- This is an intensive program on full stack development consisting of the most important topics in this area. In this program, I teach languages and technologies with mostly Java and JavaScript. It additionally includes DevOps and CI/CD. The students in the end will be supervised for around one month to do a case project as their final assignment.

Title: "Embedded Development with C++" (start date: August 2022)

- Role: teacher

- Level: Bachelor/Master/Industrial

- Type: Physical/Digital

- Number of participants: 12.

Number of lectures: the course will be around 100 hours

- This is an intensive program on embedded development consisting of the most important topics in this area. In this program, I teach languages and technologies used for embedded development with mostly C++ and Python. It additionally includes the use of machine learning using Python on IoT devices and programming robots using NVIDIA Jetson™, which is the world's leading platform for autonomous machines and other embedded applications. The other topics include IoT, Qt framework, and OpenCV.

Title: "Front-End Development with JavaScript" (start date: April 2022)

- Role: teacher

Level: Bachelor/Master/Industrial

- Type: Physical/Digital

- Number of participants: 13.

- Number of lectures: the course will be around 100 hours

In this course, I will be teaching languages and technologies used for web development using latest frameworks in JavaScript (React), HTML, and CSS.

**Institute**: School of Economics, Innovation, and Technology, <u>Kristiania University College</u>, Norway

Lecture: "Data Management in Cybersecurity Operations" (Fall 2023)

- Role: Guest lecturer in the course "Governance, Risk, Compliance"

Level: BachelorType: Physical

- Number of participants: around 200.

- Number of lectures: 2

In this course, the students learned about the critical role of data management in the context of cybersecurity operations. My lecture focused on the different data types that we can expect to receive from network and end-host systems. I emphasized the significance of understanding these data types for effective cybersecurity strategies, illustrating how each type of data can be leveraged to identify, assess, and mitigate potential security threats. Through this lecture, students gained insights into the practical aspects of data management in cybersecurity, preparing them to handle real-world challenges in their future professional roles.

Lecture: "Computer Networking" (Fall 2022)

- Role: Guest lecturer in the course "Digital Technology TK1104"
- Level: BachelorType: Physical
- Number of participants: around 600.
- Number of lectures: 3
- In this course, the students learn to use the TCP/IP model and knowledge of protocols belonging to it to analyze the entire process of connecting to a LAN and downloading e.g. a web page. They use standard tools for debugging and correcting network connections e.g., command line tools in Windows and Linux.

Lecture: "Computer Networking" (Spring 2022)

- Role: Guest lecturer in the course "Digital Technology TK1103"
- Level: BachelorType: Physical
- Number of participants: around 40.
- Number of lectures: 3
- In this course, the students learn to use the TCP/IP model and knowledge of protocols belonging to it to analyze the entire process of connecting to a LAN and downloading e.g. a web page. They use standard tools for debugging and correcting network connections e.g., command line tools in Windows and Linux

Institute: University of Tehran, Iran

Course: Advanced Computer Networks (2011 - 2014)

- Role: guest lecturerLevel: Master/PhDType: physical classes
- In this course, I gave several lectures on the design of high-speed wireless networks. Since the students were mostly PhD students, I focused more on advanced topics I was researching during my PhD.
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 80.
- Number of lectures: 2

Course: Open presentations on advanced topics in networking (2010 – 2014)

- Role: a lecturerLevel: Master/PhD
- Type: physical classes
- In this series, I gave several lectures on hot topics in high-speed wireless networks including IEEE 802.11n/ac, multi-channel MAC protocols, QoS and optimization, etc.
- Number of students: around 80.
- Number of lectures: 10

Course: Computer Networks (2013)

- Role: teacherLevel: bachelor
- Type: physical classes
- In this course, I taught basic concepts of computer networking, from the physical layer to higher layers such as transport. I used the textbook "Computer Networks" by Andrew S.

Tanenbaum. The course had a midterm and a final exam, with homework, and a final project.

- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 30.

Course: Fundamentals of Computer Programming (2010)

Role: teacherLevel: bachelor

Type: physical classes

- In this course, I taught basic concepts of programming such as machine programming/concepts, programming in C/C++, and some OOP. The course had a midterm and a final exam, with homework, and a final project. I used a combination of textbooks, aligning the course content with its defined goals by the university.
- Evaluation: score 18.5 (on a 20 scale) in the fall semester, 2010. The average score of the teachers in the department was 17.5.
- Number of students: around 30

Course: Fundamentals of Information Systems and Electronic Commerce (2010)

Role: teacherLevel: master

- Type: physical classes

- In this course, I taught basic concepts of information systems and e-commerce. I used the textbook "Introduction to Information Technology" by Efraim Turban, R. Kelly Rainer, Richard E. Potter. It included topics on Digital Economy, Information Security, Data and Knowledge Management, and Network Computing. I additionally taught two lectures on programming with JavaScript, as a simple programming language to give the students a flavor of programming since they didn't have a programming background. The course had a midterm and a final exam, with homework, and a final project.
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 20.

Institute: University of Sistan and Balouchestan, Iran.

Course: Artificial Intelligence (2009 - 2011)

Role: teacherLevel: bachelor

- Type: remote, online teaching as well as a few physical classes

- In this course, I taught various methods and algorithms used in artificial intelligence. I chose the well-known textbook "Artificial Intelligence: A Modern Approach", by Stuart Russell and Peter Norvig. I was also used my book ([b1] in CV) to teach complementary materials on how to get ready for master studies in this field. One of the special aspects of this course was that it was taught online using a digital system. This type of teaching has recently become popular due to COVID-19, but back then, it was futuristic. However, the students and I completely managed to handle communications, delivery of assignments, asking questions, and for me, how to involve students in class discussions. The result, I think, was great for both sides. The result, I think, was great for both sides. The course had a midterm and a final exam, with homework, and a final project.
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 80.

Course: *Software Engineering* (2009 – 2011)

Role: teacherLevel: bachelor

- Type: remote, online teaching as well as a few physical classes
- In this course, I taught all the concepts in software engineering including project management, project estimation, software modelling and UML, software architecture, etc. I used several well-known textbooks in the field: "Software Engineering: A Practitioner's Approach" by Roger S. Pressman, "Software Engineering" by Ian Sommerville, and several books on UML. I was also used my book ([b3] in CV) to teach complementary materials on how to get ready for master studies in this field. One of the special aspects of this course was that it was taught online using a digital system. This type of teaching has recently become popular due to COVID-19, but back then, it was futuristic. However, the students and I completely managed to handle communications, delivery of assignments, asking questions, and for me, how to involve students in class discussions. The result, I think, was great for both sides. The result, I think, was great for both sides. The result, I think, was great for both sides. The course had a midterm and a final exam, with homework, and a final project.
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 80.

Course: Simulation and Performance Evaluation of Computer Systems (2009)

Role: teacherLevel: bachelor

- Type: remote, online teaching as well as a few physical classes
- In this course, I taught various topics on statistics, probabilities, and their applications in modelling of computer systems, as well as simulation techniques used in this field. I used several textbooks, and created a synthetic lecture, meeting the requirements of the course defined by the university. One of the special aspects of this course was that it was taught online using a digital system. This type of teaching has recently become popular due to COVID-19, but back then, it was futuristic. However, the students and I completely managed to handle communications, delivery of assignments, asking questions, and for me, how to involve students in class discussions. The result, I think, was great for both sides. The course had a midterm and a final exam, with several homework, and a final project.
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 40.

## Institute: Mahestan Institute, Iran.

Course: Artificial Intelligence (2004 – 2010)

- Role: teacher, course development
  - Level: graduated/seeking master studies
  - In this course, I taught various methods and algorithms used in artificial intelligence. I chose the well-known textbook "Artificial Intelligence: A Modern Approach", by Stuart Russell and Peter Norvig. I also prepared a complete lecture on this topic with the solution manual to all the questions in previous national exams for master studies as well as a number of newly-designed questions. The lecture became a book ([b1] in CV) and it was updated by the publisher and me per year. Thousands of copies of the book were sold per year as this was the first book on artificial intelligence with the goal of preparing students for Master studies. I taught this course for several years until I left Iran for a visiting researcher position in South Korea in 2011.
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 90.

Course: Software Engineering (2004 – 2010)

- Role: teacher, course development
- Level: graduated/seeking master studies
- In this course, I taught all the concepts in software engineering including project management, project estimation, software modelling and UML, software architecture, etc. I used several well-known textbooks in the field: "Software Engineering: A Practitioner's Approach" by Roger S. Pressman, "Software Engineering" by Ian Sommerville, and several books on UML. I also prepared a complete lecture on this topic with the solution manual to all the questions in previous national exams for master studies as well as a number of newly-designed questions. The lecture became a book ([b2] in CV) and it was updated by the publisher and me per year. Thousands of copies of the book were sold per year as this was the first book on software engineering with the goal of preparing students for Master studies. I taught this course for several years until I left Iran for a visiting researcher position in South Korea in 2011.
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 90.

Course: Database Systems (2006)

- Role: teacher, course development
- Level: graduated/seeking master studies
- In this course, I taught various methods and modelling techniques of data, and a complete introduction to relational databases as well as the SQL language. I used the textbook "Database System Concepts" by Abraham Silberschatz, Henry F. Korth, and S. Sudarshan. I also prepared a complete lecture on this topic with the solution manual to all the questions in previous national exams for master studies as well as a number of newly-designed questions. The lecture became a lecture note ([b3] in CV).
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 20.

#### **Institute**: Azad University of Karaj, Iran.

Course: *Information storage and retrieval* (2005)

- Role: teacherLevel: bachelor
- In this course, I taught various methods and algorithms on how to store data in files systems, file structures, indexing, sorting, fast retrieval of data, and data structures using in this field. This course is fundamental to database systems. I used a textbook, and prepared slides/lectures for students. The course had a midterm and a final exam, with several quizzes, homework, and a final project. The project was about implementing one of the methods explained in the course. The students were frequently asked about the quality/depth/breadth of the course and what they expect to learn.
- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 50.

Course: Assembly and Machine Programming (2003, 2004)

- Role: teacherLevel: bachelor
- In this course, I followed a demonstrating/collaborative approach for assembly and machine programming. The course was held in a lab, where students could directly see the results of

what I teach, and they were able to immediately write codes and see if they understood the content well. I used "MS debug" as the tool, and used "Turbo Debugger" as an advanced tool for further experiments.

- Evaluation: since the course was in a lab in a demonstrative manner, I was able to see how the students develop, and based on their progress I would add/modify/remove future materials to get a better teaching performance. At the end of the semester, I got positive feedback from the students.
- Number of students: around 150.

## Institute: Kanoon Ghalamchi, Tehran, Iran (2002 - 2004)

Role: manager and counselor of the computer engineering section

**Task**: Conducting national-wide, weekly contests on computer engineering courses among thousands of students who were getting ready for the national MSc entrance exam.

Level of students: graduated/seeking master studies

**Description**: After finishing my Master courses, I started this position at Kanoon institute, which is the largest private institute in this business in Iran with hundreds of thousands of contestants per year in all the fields. As the computer engineering section head, I was responsible for all the coordination tasks among the teachers who were designing exam questions per course, the non-academic staff who were conducting and holding the exam, and the students participating in exams to be better prepared for the national exam. I was personally present at one of the exam sessions in Tehran, in a large hall of around 1000 contestants, answering the questions the students might have during and after the exam to summarize feedback for the teachers. Sometimes, I would also hold a lecture after each exam for interested students on questions in the exam. This was a very challenging and active experience for me because I had to be prepared, both on managing such collaborations and on answering to students, receiving/understanding their feedback on very specific topics in all the computer engineering courses, and then, having a meeting with corresponding teachers on how to improve next exams, and holding special courses with the presence of each teacher on-demand.

Number of contestants: more than 10000.

#### Institute: Amirkabir University of Technology, Tehran, Iran.

Course: Distributed Artificial Intelligence (2002)

- Role: teaching assistant

Level: Master

- In this course, I was responsible for preparing the course website, the materials, etc.

- Number of students: around 30.

Institute: Ferdowsi University of Mashhad, Mashhad, Iran.

Course: Java (1999 - 2001)

Role: teacherLevel: bachelor

In this course, I taught Java 1.1 and 1.2 (available versions back then) for the first time at the university. I used the book "Java 1.2 Unleashed", by Jamie Jaworski and some other books, and the course covered almost all of the features of Java such as core, Swing, RMI, and JDBC. The course became very popular and attracted many students, even those who were elder than me.

- Evaluation: I got very positive feedback from the students; they liked the content and especially, the way I taught the course.
- Number of students: around 80.

## Course: Compilers (1999, 2000)

- Role: teaching assistant/teacher
- Level: bachelor
- In this course, the role of the teaching assistant was to teach advanced topics on compliers. In this course, I used a book on how to develop a compiler for a simple language. The compiler was written in C++ (OOP).
- I was also responsible for teaching the students how to solve problems of the main textbook.
- Evaluation: At the end of the semester, I used my evaluation about the course, materials, teaching method, and my abilities. I got positive feedback from the students.
- Number of students: around 80.

#### Lectures: introducing new topics (1999, 2000)

- Role: lecturer/manager
- Level: bachelor
- In a series of lectures, I introduced several new topics to students as a voluntary teaching duty. I was the head of the student scientific community, and based on students' feedback, I offered the series. I introduced the following topics for the first time at the university.
- Topics:
  - Unified Modelling Language (UML). A complete lecture on UML and its diagrams with samples.
  - o Jini: the Java distributed framework. A lecture on what Jini is and how to develop using that. I used the book "Jini Specification" as my reference.
  - o CORBA: a distributed OOP framework.
  - ASP/JSP/JavaScript. A lecture on how to develop web applications beyond CGI, which was popular back then.
- Evaluation: I used my capacity as the head of the student scientific community to get students' feedback/opinions through different methods on how to conduct the series. This helped a lot in fine-tuning the program for students.
- Management: as part of my duties, I also coordinated with some other teachers to hold workshops/lectures on similar topics.
- Number of students: around 300.

#### Course: Assembly and Machine Programming (1998, 1999)

- Role: teaching assistant/teacher
- Level: bachelor
- In this course, the role of the teaching assistant was to teach advanced topics on the assembly language such as the 80386 architecture instruction sets with solving more assignments. In this course, I used a book on "The 80386 Architecture", and created a digested lecture from it with extra examples and problem solutions.
- I was also responsible for the lab of this course, helping students with their programming problems in the lab.
- Evaluation: At the end of the semester, I used my evaluation form about the course, materials, teaching method, and my abilities. I got positive feedback from the students.
- Number of students: around 90.

#### Course: Advanced Programming (1998)

- Role: teaching assistant/teacher
- Level: bachelor

- In this course, the teacher taught only C, but it was the role of the teaching assistant to teach C++ and Object-Oriented Programming (OOP). In this course, I developed a complete lecture of around 10 sessions on in-depth OOP; I used the book "Using Borland C++ 5" by Ed Toupin, Russ Jacobs, and created a digested lecture from all of its OOP chapters including polymorphism, multiple inheritance, etc. The last part of the class was dedicated to Delphi 3, and I used the book "Special Edition Using Delphi 3 (Special Edition Using)" by David Powell, 1997, to introduce an IDE for windows application developments.
- I was also responsible for the C/C++ lab of this course, helping students with their programming problems in the lab.
- Evaluation: At the end of the semester, I created an evaluation form about the course, materials, teaching method, and my abilities. I got very helpful feedback from the students, and my overall score was around 18 (on a 20 scale).
- Number of students: around 40.

#### Institute: Sadjad University, Mashhad, Iran

Course: Assembly and Machine Programming (1999)

- Role: teaching assistant/teacher
- Level: bachelor
- In this course, the role of the teaching assistant was to teach advanced topics on the assembly language such as the 80386 architecture instruction sets with solving more assignments. In this course, I used a book on "The 80386 Architecture", and created a digested lecture from it with extra examples and problem solutions.
- Evaluation: I used different ways of getting feedback from students such as surveys and direct inquiries. I got positive feedback from the students.
- Number of students: around 200 (in 5 different classes).

#### Institute: Khavyam University, Mashhad, Iran

Course: Assembly and Machine Programming (1999)

- Role: teaching assistant/teacher
- Level: bachelor
- In this course, the role of the teaching assistant was to teach advanced topics on the assembly language such as the 80386 architecture instruction sets with solving more assignments. In this course, I used a book on "The 80386 Architecture", and created a digested lecture from it with extra examples and problem solutions.
- Evaluation: I used different ways of getting feedback from students such as surveys and direct inquiries. I got positive feedback from the students.
- Number of students: around 50.

## Institute: Islamic Azad University of Mashhad, Mashhad, Iran.

Course: Compilers (2000)

- Role: teaching assistant/teacher
- Level: bachelor
- In this course, the role of the teaching assistant was to teach advanced topics on compliers. In this course, I used a book on how to develop a compiler for a simple language. The compiler was written in C++ (OOP).
- I was also responsible for teaching the students how to solve problems of the main textbook
- Evaluation: I used different ways of getting feedback from students such as surveys and direct inquiries. I got positive feedback from the students.
- Number of students: around 50.

#### **Experiences from the counseling of students:**

2004 – 2010 Institute: Mahestan Institute, Iran.

Task: providing professional advice on how/what to read computer engineering courses to get ready for the MSc national entrance exam. It included advising textbooks, materials, study approaches, how to choose a proper field in the master studies, future market, and the needs matching with courses to be taken.

Major focus: Artificial Intelligence, Software Engineering, Database Systems

Number of students: around 50.

2002 – 2004 Institute: Kanoon Ghalamchi, Tehran, Iran

Task: providing professional advice on how/what to read computer engineering courses to get ready for the MSc national entrance exam. It included advising textbooks, materials, study approaches, how to choose a proper field in the master studies, future market, and the needs matching with courses to be taken.

Major focus: all the computer engineering courses

Number of contestants: around 100.

#### **Experiences from examinations:**

For all the courses I have been the main teacher, I personally designed the exams. In the following, I present my examination experiences for the courses with a different main teacher.

2011 – 2014 Institute: University of Tehran, Iran

Courses: Advanced Computer Networks

Level: Master/PhD

Task: I was asked by the main teacher to design a number of questions on the lectures I had presented in the course.

2002 – 2004 Institute: Kanoon Ghalamchi, Tehran, Iran

Task: as the scientific head of the computer engineering section, I was responsible for the scientific approval of the exams provided by several teachers on all the computer engineering courses. The teachers would design exam questions, and then, I would verify if they match the overall syllabus of the exams, the exam series overall plan to cover all the materials in a specific number of exam sessions, announcing the students the plan and how to get prepared for each specific one. It was a very challenging experience and needed a lot of knowledge of all the courses and deep planning.

Results: I successfully managed all the exam series, and got positive feedback from the students showing their satisfaction.

Major focus: all the computer engineering courses

Number of contestants: around 10000.

#### **Experiences from examination committees:**

2016 – 2021 Institute: University of Oslo

Level: master

Role: a defense committee member

Number of students: 4

*2020 – 2021* **Institute**: University of Stavanger

Level: bachelor

Role: a defense committee member

Number of students: 3

## Pedagogically related experiences:

#### **Study Program Development:**

#### *2022* – **Institute**: Noroff, Norway

- Since the beginning of teaching embedded development at Noroff, I have also started developing a complete program for embedded development since this topic was new there. This topic had been run there as a pilot, and the goal was to make it a full program. I added the missing parts and modules to the program including some C++ features, CI/CD, Internet of Things (IoT), Embedded Communication and Networking, Open Platform Communication (OPC), a complete introduction to artificial intelligence and machine learning, and some lab work using Cisco Packet Tracer. The program is still under further improvement by receiving more feedback from our partners.
- I also designed a C++ bootcamp as a part-time program.

#### *2020* – **Institute**: University of Oslo, Norway

At UiO, I am running a pilot program; I have found a gap in the current master study program, and consequently, I wrote a proposal in early 2020 on modifying the master program to fill the gap, which could lead to a more beneficial study for master students, more useful services for our group at UiO – the Network and Distributed Systems group – and some potential benefits for future PhD students. The proposal was accepted and now it is run as a pilot program in the department of informatics, UiO under my supervision with the assistance of the administration. My Master student worked under this program.

## **Course development:**

#### 2004 – 2010 Institute: Mahestan Institute, Iran

- Artificial intelligence
- Software engineering
- Database systems
- I developed these courses from the scratch, using a combination of several textbooks and online materials for each one, as well as compiling hundreds of multiple-choice questions with their solution manual. More details are in the "Teaching experiences" section.

## **Examination plan development:**

Institute: Kanoon Ghalamchi, Tehran, Iran

o It was an extensive plan to divide all the computer engineering courses materials into around 10 parts, keeping the parts consistent and coherent due to their dependencies, and making sure that each division is not too heavy/difficult/shallow/easy. I designed such a plan considering current

2002 - 2004

## **Textbooks and teaching materials:**

For three of the courses I have taught, i.e., database systems, artificial intelligence, and software engineering, I authored books/lecture notes, led to some best-selling books/lectures, with over tens of thousands of sold copies over the past years.

- [b4] **Peyman Teymoori**. *C++ Bootcamp: From Beginners to Advanced*, Noroff, Oslo, Norway, 2023.
- [b3] **Peyman Teymoori**. *Database Systems*, Lectures on data modelling, data processing, SQL, and answers to hundreds of multiple-choice questions, Mahestan Institute, 2006.
- [b2] **Peyman Teymoori**. *Software Engineering*, 2nd Edition, Pouran Pajouhesh publications, ISBN: 978-964-184-472-3, 2013, Iran. (in Persian)

**Contributions**: the author. A comprehensive 300-page book on main software engineering topics and a solution manual to all the previous questions in the national graduate entrance exam. The book can be (is) used as a textbook at (some) universities in Iran.

[b1] Toktam Ramezanifarkhani, **Peyman Teymoori**, MohammadHosein Mansouri. *Electrical Circuits, Artificial Intelligence, and Design of Algorithms: Preparing for the National Graduate Entrance Exam.* Azadeh publications, ISBN: 978-964-501-274-6, 2008, Iran. (in Persian)

**Contributions**: the author of the artificial intelligence section. A comprehensive 418-page book on the aforementioned topics and a solution manual to all the previous questions in the national graduate entrance exam

#### **Administration of education:**

2023 – **Institute:** Business School, University of South-Eastern Norway

#### Roles:

- Program Coordinator of Industrial Bachelor in Information Technology (IT) and Information Systems (IS)
- Program Advisor (Coordinator) of Microsoft Learn for Educators (MSLE) at USN
- Program Coordinator of Cisco Networking Academy (NetAcad) at USN

2002 – 2004 Institute: Kanoon Ghalamchi, Tehran, Iran

Role: Head of the computer engineering section

#### **Pedagogical education:**

2022 **Institute**: Cisco

- Instructor training program (for the CyberOps course)
  - This is a special program run by Cisco for those who would like to be certified to teach Cisco-related courses. This program I am involved in is about Cyber Operations to teach Cisco CyberOps

#### Associate1.

#### 2022 - General pedagogical training programme (200 hours)

**Institute**: University of Oslo, Norway

- Teaching and Learning in Higher Education Introductory module. (120 hours, passed in Spring 2022)
- o Research Supervision (30 hours, passed in Fall 2022)
- Development work for university pedagogy (50 hours, planned for Spring 2023)

2003 – 2005 Institute: Mahestan Institute, Iran

- Attending a two-day workshop on teaching methods, 2003
- o Attending a one-day workshop on problem-solving, 2005

2002 Institute: <u>Kanoon Ghalamchi</u>, Tehran, Iran

Attending a two-day workshop on designing study programs, 2002

## **Teaching Statement**

## **Focus on Student Learning:**

It has been a while that the focus of teaching has changed from the teacher-centered/content-oriented concept to the student-centered/learning-oriented concept. As discussed by [1], this transition stems from the fact that students should create knowledge where the teacher is just a facilitator of learning rather than a transmitter of knowledge via monological lectures for a large group of students. To achieve this goal, it is important to understand the design principles of student-centered learning to provide an active learning environment. The study performed by [1] offers a number of guiding principles that a student-centered learning framework must provide: 1) the possibility of being actively involved in modifications of course-relevant knowledge, 2) the possibility of producing knowledge, individually or collaboratively, 3) communication possibilities with the teacher/peers, 4) various formative types of feedback before a summative one, 5) a self-regulation active learning management opportunity for students to take control of their learning process, 6) having the possibility of configuring the tools, activities, and resources they would like to engage with, and 7) allowing students to take different learning trajectories that match their interest, needs, capabilities, etc.

Computer science is a very active and fast-growing field. The knowledge which is being taught can be deprecated in a few years. This indeed makes a student-centered learning approach of significant importance for computer science students. Instead of being only a consumer of knowledge in a one-way communication style of lecturing, I believe students, as the long-term learning goals, should learn how to learn, what to choose to learn, design their learning path, and be able to assess their progress. The aforementioned principles can indeed establish such a foundation and help them achieve a lifelong self-directed learning development and become professionals in their career.

I would like my students feel that they also have the responsibility of their own learning. I use various methods in my classes to emphasize on student-centered learning. Examples, categorized under each of the above principles, include: 1) asking for early feedback on the course syllabus and highlighting the possibility of modifications in the flexible/optional parts, 2) research-based assignments (in teams of two to three students) that have the possibility of producing new

<sup>&</sup>lt;sup>1</sup> https://www.cisco.com/c/en/us/training-events/training-certifications/certifications/associate/cvberops-associate.html

knowledge, especially at the master level, 3) being always open and encouraging them to bring up any opinions on the course and collaborative assignments, 4) using various tools such as Mentimeter to get feedback on, for example, special topics they would like to be covered, or how they would like to approach an assignment, 5) granting them enough independency to pick a research topic of their own, and guiding them through their choices, 6) making sure that they are comfortable with the tools they have been engaged with such as programming IDEs of their choice, and 7) allowing students to, for example, do their assignments/research work relevant to the problems they have at their work, personal life or the career they would like to follow, etc.

#### **Distinct Development over Time:**

One of the advantages of academic life is the opportunity to interact with young and bright students with a future ahead. It gives me immense satisfaction that I can have the privilege to take part in the initial stages of their journey. During my undergraduate study, I started being actively involved in teaching and teaching assistant activities. Many of my lectures were voluntarily on newly arrived topics back then. After completion of my undergraduate study, I continued with a postgraduate study in computer science. During the master studies, I also lectured regularly to students as teaching assistant. After completion of my master studies, I continued teaching, designing exams, supervising, and mentoring students regularly at public and private institutes.

Since the beginning of being a teacher and being very motivated in teaching, I have always been thinking about how to facilitate my growth and development as a teacher. I remember that I used at least one form of feedback since the first course I taught as a teaching assistant during my bachelor studies. It was a survey form, asking students for various ways that the course and my teaching style could be improved. I learned a lot from the results and kept surveying students on the next courses. I intend to keep a list of highlighted feedback, as a journal, and read it to make sure that I have improved my skills properly and continuously.

Over these years, I have received much different feedback, some of them were very positive and some were a bit disruptive! For example, I had to add 5 more chapters to a 10-chapter book that I had authored to address some feedback from a student on my course syllabus. Of course, I was very satisfied with the result in the end. My personal attitude is to always keep various feedback channels open even in every informal talk to students by considering their concerns and listening to their problems.

I have found the eXtreme Teaching (XT) framework [2] an interesting way of teaching improvement since it is based on a famous Agile Software Development Process, called XP. XT is a highly iterative framework looking at teaching as a sequence of small increments of student learning. XT's goal is to be as early as possible in adopting new changes since post-mortem course evaluations are simply too late for the current course [2]. XT includes the following practices: 1) Collective Course Ownership and Pair Teaching, 2) planning Game and Constructive Alignment, 3) Formative Assessment, 4) Explicit Rules of the Game and Student Involvement, and 5) 40-hour Week. I personally found the first practice very helpful, especially when I was collaborating with a colleague to teach a course; this way, any teaching defect could be diagnosed faster as the teacher can always take advantage of a peer mentoring method.

Building on this foundation of continuous improvement and student engagement, my recent experience with the Object-Oriented Programming (OOP) with Java – 1 course at USN stands out as a testament to the effectiveness of these methods. Teaching this course at a low bachelor level at USN was a new venture for me (although I had recently taught it at a high level at Noroff with students who already had a master's degree), and I approached it with a commitment to rapidly adapt and refine my teaching strategies based on student feedback. Recognizing the importance of early and actionable feedback, I conducted several surveys at different stages of the course, starting right from the beginning. These surveys were meticulously designed to capture the students' perspectives on various aspects of the course, including the content, my teaching style, and the overall learning experience.

The feedback gathered was both insightful and instrumental in shaping the course as it progressed. It allowed me to make timely adjustments to the course material and my teaching approach, ensuring that the course remained aligned with the students' needs and learning objectives. This proactive approach to incorporating student feedback proved to be highly

effective. By the end of the course, there was a noticeable improvement in the evaluation scores, reflecting the positive impact of these adjustments on the students' learning experience. (See Appendix I for some students' feedback.)

#### **Research-Based Approach:**

Academic people are expected to be qualified researchers in their own field. However, it does not mean that they have acquired enough theoretical background on teaching in their field [3]. They might already know how to teach implicitly, but I believe they should be true researchers in teaching as well. This is the main motivation behind learning how to teach in a research-based manner.

It is quite common that a lecture/assignment/task/etc. does not work as planned or leads to lower quality results than expected. I personally prefer systematic ways of finding the root problem, and then, resolving that. As suggested by [3], transformative reflection is indeed what teachers should do, which means that teachers should critically reflect on their teaching and find what you might be rather than what you are. This is done by the process of 1) reflection, 2) plan, 3) apply, and 4) evaluation.

During the courses I have taught so far, I have done some research on how to improve the teaching quality which will be elaborated in the following. As a teacher in the field of computer science/engineering, I believe that students should develop a strong enough theoretical foundation as well as being involved in building practical systems, see the value of what is being taught, and learn to embrace opportunities for working in a constructive, interactive, and collaborative environment. When I teach, I like to give context to the theory by tying in an application area where the topic is used. This is not only an opportunity to keep lectures fresh and relevant for current research, but it also makes the subject more interesting for students in those other areas. I enjoy using activities to break up the routine of lectures and to draw the attention of students to the lecture material. My experience has been that students are often grateful for such activities and will embrace them with earnest.

Computer Science is a practical field. Based on my own experience and from the feedback provided by students, I believe that students should also have hands-on experience in building small systems or working through problems rather than just a theoretical treatment of the subject. The impact of a hands-on experience tends to stay for a much longer time. I would also like to keep my courses flexible.

My view on teaching theoretical/mathematical materials is to attract students by showing them a preliminary evaluation in software applications such as Mathematica and MATLAB to show the students how the theory is used in practice. I would also like to invite guest lecturers or do a field trip for my courses whenever possible. Lastly, I will ensure that my grading system doesn't penalize students for doing more exploratory work rather than results-oriented work. I believe that in fields such as computer science, students learn much better if they are allowed to discover the answers on their own, through trial and error, rather than have all their "How do I do this" questions answered.

#### A Collegial Attitude and Practice:

It is an essential part of an academic job to work with colleagues on collaborative projects, supervisory tasks, and pair teaching. For example, during the course "Introductory Module to the Teaching and Learning in Higher Education", I was inspired a lot from my peers, both from the group activities and from visits to their teaching sessions. I found out that I should be more specific about my lecture learning goals, and it is wise to ask students more frequently if they wonder about anything in the class or the topic being discussed. Peer mentoring has this potential to uncover hidden behavior which could affect teaching performance. For example, I was informed that sometimes, my discussion becomes out-of-synch with the content presented on the current slide; I found it very helpful since this is something that students might skip, but hearing this from a colleague will result in an improvement in teaching and student learning as well.

By participating in my peers' lectures, I found out that a good teaching style does not imply

delivering as much knowledge as possible, which I had done before. Instead, ensuring that students follow the concept which is supported by enough examples and real-life experience can indeed have a much higher impact.

#### **Examples of the Evaluation of my own teaching:**

- See Appendix I for some screenshots of my students' feedback.
- I have taught a lot from students' feedback. They have generally been very positive, motivating me more in keeping up with my teaching activities.
- I use a peer-mentoring method of evaluating my teaching. I have asked some peers at UiO to attend my lectures and provide feedback on time-line, pedagogy, performance, and student engagement.
- As an evaluation of my teaching quality, in 2010 when I was a PhD student, I would teach (as the main and only teacher) the Fundamentals of Computer Programming course at University of Tehran (a top university in Iran), and I got the score of 18.5 (on a 20 scale) from student evaluations, while the average score of the school (of around 30 full professors, and 40 associate professors) was 17.5. The survey had been performed by the school administration.
- I have used various methods of getting feedback including formal and informal methods.
  - One of my characteristics is that I always tend to (informal) talk to students on their matters in the course; this has been a very powerful tool to me in finding holes/gaps in the materials, etc.
  - o I almost always use the *summative* method, a formal evaluation form at the end of the semester to have a general overview of my teaching in that semester, making me more effective for the next semesters. What I used was a printed form with around 20 questions on the materials, my teaching approach, what they expected from the course, and what they have learned in the end.
  - In cases like my experiences at <u>Kanoon Ghalamchi</u>, Tehran, Iran, I had the possibility to get formative feedback from the students by *monitoring* their scores through the series of exams, as well as comparing a series with the previous one.
- At each course, I always ask questions from myself to reflect critically on my own teaching abilities. Various questions such as "how much do I let students think about a challenge before I step in?".
- The feedback I got about myself and monitoring students' development over time has formed a philosophical view of teaching for me, which is as follows.

## **Teaching Philosophy:**

One of the advantages of academic life is the opportunity to interact with young and bright students with a future ahead. It gives me immense satisfaction that I can have the privilege to take part in the initial stages of their journey. As a teacher in the field of computer science/engineering, I believe that students should develop a strong enough theoretical foundation as well as being involved in building practical systems, see the value of what is being taught, and learn to embrace opportunities for working in a constructive, interactive and collaborative environment. When I teach, I like to give context to the theory by tying in an application area where the topic is used. This is not only an opportunity to keep lectures fresh and relevant for current research, but it also makes the subject more interesting for students in those other areas. I enjoy using activities to break up the routine of lectures and to draw the attention of students to the lecture material. My experience has been that students are often grateful for such activities and will embrace them with earnest.

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#### **Pedagogy Development Project:**

In this section, I present my development work I have started as the final project in my pedagogy development since January 2023.

## Title: Differentiated Instruction in C++: A New Approach to Computer Programming Education

#### Context:

Many individuals, after dedicating years to their profession, often find themselves desiring a career change or seeking to enhance their skill set by acquiring knowledge of cutting-edge programming languages like C++. This inclination arises from various circumstances, such as the rapid advancements in technology, the emergence of new industries, and personal aspirations for growth and fulfillment. For instance, professionals in the field of marketing might seek to transition into data analysis to leverage the power of data-driven decision-making. Similarly, individuals employed in traditional manufacturing sectors may be motivated to learn C++ to adapt to the rising demand for automation and robotics. In addition, the dynamic nature of the job market and the desire to explore fresh opportunities contribute to the inclination for career switches or upskilling endeavors.

#### Offer

We present an opportunity to those seeking a career change or an upskilling journey by providing a comprehensive C++ bootcamp. This program equips students with both fundamental and advanced concepts of C++. The bootcamp is designed to be self-paced, allowing students to study modules independently, ensuring flexibility and convenience.

#### **Problem:**

However, a significant challenge lies in catering to the diverse backgrounds and expectations of the students participating in the bootcamp. Some students may find the course too elementary, desiring more in-depth exploration, while others may express dissatisfaction with the course being too demanding. Moreover, the future aspirations of the students also vary greatly, with some aspiring to specialize in game development while others aiming for robotics or other fields.

Addressing these concerns while maintaining the course's integrity and engagement poses a unique difficulty. Balancing the delivery of content that is both stimulating and accessible is crucial to ensure that students remain motivated and challenged throughout their learning journey. Additionally, anticipating the diverse directions students may wish to pursue after completing the bootcamp, such as game development or robotics, requires careful planning to incorporate relevant topics and provide suitable resources to support their future endeavors.

#### **Solutions:**

In addressing the problem of catering to a diverse group of learners with differing skill levels and future expectations, two potential solutions come to mind: creating multiple specialized courses or utilizing differentiated instruction techniques.

1) Creating Several Courses: This approach involves designing different courses to cater to specific learner groups. For instance, a basic course could be created for beginners, an advanced course for those seeking more challenging material, and specialized courses for those interested in specific applications of C++, such as game development or robotics. This solution offers a tailored experience for each learner group and could potentially cater to their individual needs more effectively. However, it also presents significant logistical challenges. Developing multiple high-quality courses requires considerable resources in terms of time, manpower, and capital.

Additionally, this approach could lead to segmentation of the learning community, reducing opportunities for peer learning and interaction across different skill levels.

**2)** Differentiated Instruction Techniques: This approach maintains a single course but varies the instruction techniques to cater to different learning needs within the same framework. Differentiated instruction could include offering supplementary materials for advanced learners, providing additional support and resources for beginners, and offering elective modules for specialized interests. This approach maintains a unified learning community and is more resource-efficient than creating several courses. However, implementing differentiated instruction effectively can be challenging, as it requires skilled instructors and a flexible course design that can accommodate diverse learning paths within a single framework.

Both approaches have their merits, but differentiated instruction may be the better solution for this context. This approach offers flexibility and scalability, allowing the course to adapt to varying learner needs without significantly multiplying the resources required. It also fosters a diverse learning community where learners can benefit from interacting with peers of different skill levels and interests. However, the success of differentiated instruction relies heavily on the quality of course design and the skills of the instructors, emphasizing the need for careful planning and competent staff.

This project is still running at Noroff.

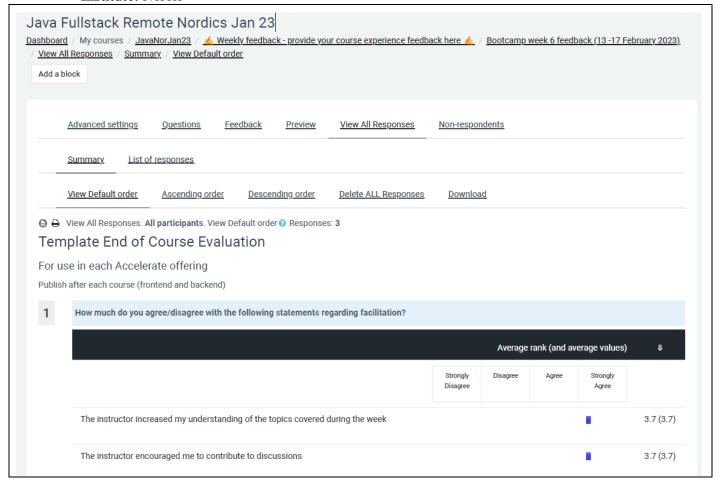
#### **Reference:**

- [1] Damṣa, Crina, and Thomas de Lange. "Student-centred learning environments in higher education: From conceptualization to design." *Uniped* 42, no. 1 (2019): 9-26.
- [2] Andersson, Roy, and Lars Bendix. "eXtreme teaching: A framework for continuous improvement." *Computer Science Education* 16, no. 3 (2006): 175-184.
- [3] Biggs, John, and Catherine Tang. *Teaching for quality learning at university*. McGraw-hill education (UK), 2011.

## **Appendix I: Some Recent Samples of Students' Feedback**

Course: Java Fullstack Remote, Nordic countries, January 2023

**Institute:** Noroff



	The instructor provided opportunities for class participation				•	3.7 (3.7)			
	The instructor provided meaningful examples				•	3.7 (3.7)			
	The day was structured well				•	4.0 (4.0)			
	Responses	Strongly Disagree	Disagree	Agree	Strongly Agree	Total			
	The instructor increased my understanding of the topics covered during the week	0	0	1 (33%)	2 (67%)	3			
	The instructor encouraged me to contribute to discussions	0	0	1 (33%)	2 (67%)	3			
	Responses	Strongly Disagree	Disagree	Agree	Strongly Agree	Total			
	The instructor provided opportunities for class participation	0	0	1 (33%)	2 (67%)	3			
	The instructor provided meaningful examples	0	0	1 (33%)	2 (67%)	3			
	The day was structured well	0	0	0	3 (100%)	3			
	Leave constructive comments on								
2	the most satisfactory aspects of the week:								
	Respondent				ا	Response			
	Learning a lot of new things!								
	The most satisfying aspect of the week was seeing and hearing Peyman manage to explain Relational Modeling in a well, understandable yet comprehensive way								
		aring Peyman manag	e to explain	Relational M	lodeling in a we	II,			

Course: Object-Oriented Programming with Java, Fall 2023

Institute: University of South-Eastern Norway, Campus Ringerike

Svaralternativ	Vekt	Frekvens	Prosent	Prosent svar				
Svært fornøyd	(1)	6	35,29%					
Fornøyd	(2)	9	52,94%					
Lite fornøyd	(3)	1	5,88%					
Svært lite fornøyd	(4)	1	5,88%					
	'			0	25	50	1	

Translation: "How much are you satisfied with the organization of the course?"

Very satisfied: 35.29%

Satisfied: 52.94%

Little satisfied: 5.88%

Very little satisfied: 5.88%

# 4 - Kommentar: Svarprosent 4/61 (6,56%)

• Emnet er bedre organisert enn alle emner jeg har tatt så langt, men føles ut som det kunne ha vært litt "mer"

Translation: "4 - Comments"

"The course is better organized than any course I've taken so far, but feels like it could have been a bit "more"".

8 - Hvordan vurderer du kommunikasjonen med de som underviser i emnet?											
Svaralternativ	Vekt	Frekvens	Prosent		Prose	nt sva	r				
Svært god	(1)	8	44,44%								
God	(2)	9	50,00%			ı					
Mindre god	(3)	1	5,56%								
Dårlig	(4)	0	0,00%								
						50	100				

Translation: "How do you evaluate the communication with those who teach the course?"

Very good: 44.44%

Good: 50% Weak: 5.56% Bad: 0%

**Course:** 2-day Onboarding workshop for Industry Bachelor students in IT and IS, August 2023

**Institute:** University of South-Eastern Norway, Campus Drammen

#### What did you like most about the onboarding process?

- I felt very welcomed as well as feeling well received by the professors and those responsible for this. Lots of interesting and promising prospects for us during these two years.
- It was fun, learnt a lot, it looks promising and I'm excited to get started!
- The social part where er work and Are together
- · Very happy with the onboarding. Nice to meet everyone.
- I liked the way the students and teacher got to know eachother, and that we got know the different career paths only on. I felt like it gave me much more motivation and energy to carry on with my studies!
- That all students and teacher already made a good relation after 2 days

## **General feedback**

- For me it exceeded my expectations, the amount of relevant technologies and courses sounds perfect for me as a student. The only negative I can think of is the initial presentation for industrial bachelor in IT and IS. It felt very vague and that's quite a risk for an unknowingly 2nd year student.
- Really good first impression, excited to get started and hope to learn lots with my classmates and professor
- Only 2 days gone, need more time to evaluate
- Everything was very good!
- For now this program seems very good, and im excited for the year ahead. You guyse have done a good job.
- · It was good