

TDDE32 Professionalism in Computer Science

Arne Jönsson

Department of Computer and Information Science

Outline

- Course intro, Arne Jönsson
- Academic writing, Jami Wienstein, Mikael Rosell
- Sustainability, Ola Leifler
- Social sustainability, Maria Eidenskog
- Ethics, Elisabeth Furberg

Professionalism

- Find solutions (research)
- Communicate (present and write reports)
- Be responsible
 - Ethics
 - Sustainability

Aim

- Prepare for academic studies at advanced level
 - An academic approach at large
 - Tools for advanced studies
- From consumer of science to producer of science
- Professional attitude towards software development

Course overview

- Academic writing
 - The writing process, quoting and referring, plagiarism
 - Review of scientific work
 - Information search and library resources
- Ethics
 - Normative theories of ethics
 - Argumentation theory and informal logic
- Sustainable Development
 - Basic knowledge of strategies and solutions for sustainable development of social, technical and ecological systems.
 - Understanding of how humans affect ecosystems and how they in turn affect humans
 - Tools for assessing sustainable development with a focus on computer science.

Course format

- Three broad themes that are interconnected
- Interactive lectures
- Seminars
 - Prepare by reading material and watching videos
 - Active participation in discussions
- Write texts that make use of scientific literature

Adjustments based on course evaluations

- Problems understanding the course structure and assessments
 - Clarified on web page
 - Removed some hand-ins
- Many teachers with and sometimes contradictory information
 - Two teachers went on sick leave during the course 2020
 - Meetings with all teachers
 - Will have bi-weekly meetings with all teachers during the course

LISAM and course web pages

- All information about the course is found on the course web pages
<https://www.ida.liu.se/~TDDE32/>
- LISAM is ONLY used for submissions and feedback to assignments through the LISAM assessment record

Course Information

Syllabus

Course format

Examination

Submissions and feedback

Deadlines

Essays

Grading criteria

Timetable

Groups

LISAM

All Messages

Contact

INTERNAL

IDA internal

Student Pages

Emergency

Course format

Course format

The color coding of the rows below show how the different topics of scientific writing, **ethics** and **sustainability** are handled throughout the course.

Overview

Deadline for the assignments can be found in [the Timetable](#)

Activity	Examination	Week
Lecture 1: Overview		35
Seminar 1: Sustainability and dilemmas	Preparation and active participation (UPG 2)	36
Lecture 2: Academic writing: Introduction		36
Lecture 3: Information search		37
Lecture 4: Societal challenges, IT and society: two sides of the coin		37
Seminar 2a: English language tips and practice	Preparation and active participation (UPG 1)	37
Seminar 3: Being a computer scientist in a changing society: flipping the coin?	Preparation and active participation (UPG 2)	38
Seminar 2b: English language tips and practice	Preparation and active participation (UPG 1)	38
Lecture 5: Moral agency and moral responsibility		38
Seminar 4: Moral responsibility in a globalized society	Preparation and active participation (UPG 3)	39
Seminar 5: Reflections on sustainability and dilemmas	Preparation and active participation (UPG 2)	40
Workshop 1: Academic writing & research ethics	Preparation and active participation (UPG 1)	40
Seminar 6: System dynamics & Fishbanks	Preparations and active participation (UPG 2).	41
Lecture 6: Contextualized responsibility		45
Seminar 7: Systems Thinking in IT systems design	Preparation and active participation (UPG 1, 2, and 3)	45
Lecture 7: Analyzing the effects of Software Systems using the Sustainability Awareness Framework		46
Workshop 2: Analyzing the effects of Software Systems using the Sustainability Awareness Framework	Preparation and active participation (UPG 2, and 3)	46
Seminar 8: SusAD analysis seminar	Preparation and active participation (UPG 1, 2 and 3))	48

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Seminar 1: Sustainability and dilemmas, 4h

This seminar will feature playing the game Dilemma, which is a board game where we mix both knowledge questions as well as short discussions on societal dilemmas.

Preparations

As preparations, you will need to watch some videos that introduce concepts related to sustainable development, from the online site [Snowflake Education](#).

Hand-in

For each of the videos, write a 1-2 paragraph summary of the contents. Hand in your summary before the seminar.

We will begin by discussing both the video contents listed above and the online news articles: general concepts of sustainability, how different dimensions of sustainability are interrelated and how IT systems have effects on individuals, organisations and societies. This will take up to 45 minutes.

Then, we will introduce and play Dilemma together for at least 90 minutes, and finally, we will use some of the examples of dilemmas and review why there can be differing perspectives on technology.

Examination

- A series of 4 shorter writing assignments (Pass/Fail)
- A longer essay written iteratively throughout the course, the basis for assessing abilities related to all three themes (U, 3, 4, 5)
 - Section 1: On sustainability
 - Section 2: On societal problems, and IT in society
 - Section 3: On responsibility
 - Section 4: On systems thinking
 - Section 5: Your own future career as an IT professional
- Final grade based on the final submission made after the final seminar in the course

Feedback on essays

- Three essay submissions
- First submitted to a group folder on LISAM
- Feedback is given by students in the group
 - Student_{*i*} ($i = 0..n-1$) reads essays from student _{$i-1 \bmod n$} and student _{$i+1 \bmod n$}
- Group feedback is given by the teachers
- At the end the revised versions of all essays are submitted to the submissions folder on LISAM

LISAM and submissions

Lisam / Courses and programs ▾ / Professionalism in Computer Science

PC Professionalism in Computer Science

Collaborative workspace + New ▾ ⚙

Members and groups

Schedule + Add ▾

Assessment record

Submissions Edit

Keep

My submission opportunities

TDDE32 Professionalism in Computer Science

Create Remove

<input type="checkbox"/>	Name		Start date	Deadline	End date ↓
<input type="checkbox"/>	Hand-in Seminar 1: Sustainability and dilemmas	0/0/0	Aug 31 2021	Sep 06 2021	Sep 06 2021
<input type="checkbox"/>	Hand-in Seminar 4: Moral responsibility in a globalized society	0/0/0	Sep 27 2021	Oct 01 2021	Oct 01 2021
<input type="checkbox"/>	Hand-in Seminar 5: Reflections on sustainability and dilemmas	0/0/0	Sep 28 2021	Oct 04 2021	Oct 04 2021
<input type="checkbox"/>	Hand-in Seminar 6: System dynamics & Fishbanks	0/0/0	Oct 05 2021	Oct 11 2021	Oct 11 2021
<input type="checkbox"/>	Final submission	0/0/0	Dec 05 2021	Dec 09 2021	Dec 13 2021

Deadlines

- For the three essay submissions deadlines are found in the timetable
- Hand-in's for the seminars must be submitted before the seminar
- Missed seminar hand-in deadline
 - Write a 3 page report on the seminar
- No show up on seminar
 - Interview 2 students that attended and write a 3 page report on the seminar content