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Administrativa

30 September 2021

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Welcome to COMP 335 – Communicating Computer Science

- ▶ Lecturer: Sebastian Wild
Ashton Building 223 ... normally
wild@liv.ac.uk
- ▶ Module website: www.wild-inter.net/teaching/comp335
→ your first address for any infos on COMP 335
- ▶ *MS Teams*: discussions
also used for announcements
- ▶ *Slido*: student response system for formative feedback
- ▶ Final mark: 20% essay + 50% lesson plan + 15% lesson delivery + 15% final report



Components of COMP 335



Lectures

learning theory
education system
background



CS Taster Days

deliver your activity
evaluate success



Lesson plan

select a CS topic &
prepare a lesson on it



Essay

literature work



Final report

reflect on delivery



MS Teams

discussion

Overview of the module

Goals:

- ▶ Develop initial teaching skills:
structuring content, creating lesson plans, engage learners
- ▶ Give you a taste of a secondary school teacher career.
- ▶ Expose you to empirical research in education
- ▶ Build appreciation for professional values in education:
safeguarding principles, the widening participation agenda, embracing diversity

Units:

0. Administrativa ← today
1. The National Curriculum in Computing
2. Learning and Motivation Theory
3. Lesson Planning
4. Empirical Science & Statistics

We will not (really) touch on:
evaluation and assessment of learning,
quality assurance and enhancement processes,
continuing professional development,
the wider context of school and higher education

What are clickers? Why use it?

- ▶ I use “clickers” as short term for any *student response system*
We will use Slido, a web-based system.
- ▶ Goal: Collect immediate, formative feedback
 - ▶ Stay focused and engaged! (“active learning”)
 - ▶ Quick feedback (for you individually) if you are on track.
 - ▶ Quick feedback (for me) if (most of) you are on track.
 - ▶ “lightweight peer instruction”



Let's try it!

Assessments

$$\begin{aligned} \text{final mark} = & 0.20 \cdot \text{Essay} \\ & + 0.50 \cdot \text{Activity Development \& Lesson Plan} \\ & + 0.15 \cdot \text{Lesson Delivery (Taster days)} \\ & + 0.15 \cdot \text{Reflective report} \end{aligned}$$

Essay

- ▶ focus on learning theories
- ▶ focus on literature work
- ▶ ~~keep you busy in semester 1~~
- ▶ get inspiration for topics for your activity

Taster Day Activity

- ▶ focus on your practical skills
- ▶ focus on collaboration and peer feedback
- ▶ bulk of mark for **planning!**
- ▶ ... plus a bit on delivery and reflection

Time Plan

Semester 1

- ▶ Week 1–5: **Lecture units**
- ▶ Week 6–7: Work on **essay**
- ▶ Week 8–13: Work on **lesson**
2 further meetings to
 - ▶ decide topics (Week 8)
 - ▶ pitch lesson plan to group (Week 12)

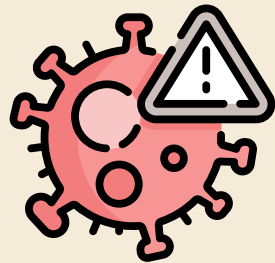
Semester 2


- ▶ ≤ 10 **Taster Day** slots
 - ▶ deliver your lesson on **3 days**
 - ▶ help organize the day
 - ▶ (details to follow)
- ▶ final report towards end of term

→ *current plan always on Canvas*

Contingency Plans

- ▶ Plan so far: Semester 2 fully on campus
- ↪ Can invite schools to campus for Taster Days



 *If that cannot go ahead, we will convert the activities to an online version.*

- ↪ Should try to plan activities where this is feasible.
- ▶ But: Full lockdown very unlikely at this point.
- ↪ For the marked delivery, we might fake a Taster Day with module students if necessary.
- ↪ *We will discuss contingency plans individually for each activity.*

Essay – CA1

▶ Topic

- ▶ up to you!
- ▶ must touch on CS education
- ▶ must involve literature/sources research

▶ Hand-in

- ▶ Tue, 9 Nov 2021 18:00
- ▶ on Canvas

▶ Marking scheme

- ▶ Content (60%)
The overall coverage of the essay and how it addresses the topic
- ▶ Organisation (30%)
The structure and presentation of the essay
- ▶ Grammar & Style (10%)
The overall readability of the essay

Example topics:

Should every child learn how to program?

What technology and content is needed to enhance learning in and outside of the classroom?

Why does computer science have a diversity problem and what can we do about it?

How can the teaching of Computing within the National Curriculum be improved at KS3?

...

Taster Day Lesson


▶ Goals

- ▶ show that CS is fun and approachable
- ▶ show that CS is relevant and important
- ▶ advertise for Liverpool and yourself

▶ Setup

- ▶ one school hour (45min)
(prep can be done during break before slot)
- ▶ one school class (30 pupils)
- ▶ Year 8–9 (age 12-14)
- ▶ in our robotics lab (probably)

▶ Topic

- ▶ up to you!
- ▶ must be engaging & enthusing
- ▶ approachable even if some prerequisites are lacking
- ▶ deliver an “Aha!” moment
- ▶ should *connect* to National Curriculum but ideally *complement* it
 “We’ve done this already . . .”
- ▶ ideally allows a “Zoom-only” variant

→ *More details on lesson & assessments (CA2–4) later.*

Introduction / Ice breaker

1. Who are you?
2. Where did you go to (secondary) school?
3. What would you like to get from COMP335?