



Proposed changes to Intelligent Systems teaching

From Kim Hagen Hall <KHagenHall@eit.ac.nz>
Date Mon 10/14/2024 10:16 AM
To Geoffrey Mather <GMather@eit.ac.nz>; Frina Albertyn <FAlbertyn@eit.ac.nz>
Cc Ish Lengyel <ilengyel@eit.ac.nz>; Anastasia Mozhaeva <AMozhaeva@eit.ac.nz>

Kia ora koutou,

Here are my notes of the proposed changes to the Level 5 & Intelligent Systems courses. All of these except will require course outline changes.

We'll now need to consider these for ZYU as well as HB & TC.

1. Maths and Machine Learning

Maths Level 6 will be taught with Python moving forwards – this has been done as part of the teaching previously, but will now be incorporated as the central teaching method. This is no change to the existing course outline. Machine Learning algorithms will also be incorporated into the Maths course, which does require a course outline change.

The Level 7 Machine Learning and AI course will then focus on Deep Learning and Generative AI, which will need an update to the Learning Outcomes in the course outline.

Assessments will stay the same for all courses.

2. Changes to Electronics & Level 5 courses

Ish has proposed adding an Electronics component into one or more level 5 courses to add more of the practical intelligent systems skills to level 5 as we market it. This would involve basic wiring & programming circuits and a board. Ian thinks we can add a module into IT Concepts, and maybe Computer Systems Architecture or Agile Projects.

We'll need to agree where to put it in, and then check to see if the course outlines need updating. John J notes that there is some background understanding that will be needed, and we will have to be sure that this is covered adequately.

Note 1: In HB & TC, an electronics lecturer can take another course for a few weeks to teach a module, but this might not be possible or desirable in ZYU.

Note 2: If we change the Learning outcomes for the level 5 courses, we will need to make sure the updated Level 5 learning outcomes still align with the NZ Dip IS & NZ Cert IS set by NZQA.

If moving the electronics component to level 5 courses is feasible, the Electronics & IOTT course can then build on these foundation skills to focus more on remote sensors and visualisation because it is no longer teaching from scratch. The learning outcomes & assessments don't change, so the course outline doesn't need updating.

- Next steps:**
- Do we need for Geoffrey to work out in principle if these changes would be also be made to the ZYU courses and, if not, whether we can make them to the HB & TC courses?
 - The Maths & Machine Learning changes can then be discussed with the relevant lecturers of these courses, and
 - We can then consult with the BCS L5 teaching team to map out what modules could be included in what course.

Ngā mihi,
Kim.



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to build a network of on job, on campus and online learning.*



Kim Hagen Hall

To: Anastasia Mozhaeva; Ish Lengyel

Reply Reply all Forward ...

Mon 9/23/2024 9:07 AM

Anastasia & Ish,

Would it work for you both if we catch up about the future ideas for Maths & Machine Learning on Thursday at 11am, before Anastasia's workshop in the afternoon?

Please feel free to suggest a different time. I'm planning to be around Tuesday – Thursday for most of the conference, and I think Ish is as well.

Anastasia, thank you, and I'll put your maths class on my calendar for Tuesday, October 22. I'll be driving up from Hawke's Bay in the morning, so my apologies if I'm delayed. If I'm too late, I'll catch up with you on Wednesday and can maybe come to the Maths class on Wednesday, after going to Ian's Web Development class.

Thanks,
Kim.



TE AHO A MĀUI



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