# Updates to CS+Maths (and AI + Maths) degrees 

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## Summary and rationale

In light of the proposed closure of the AI + Maths degree, I propose to broaden the CS+Maths DPT, to allow students to pursue a more AI-focused degree if desired. The proposed programme changes to CS+Math would create a programme that subsumes both the current AI + Math and CS+Math degrees. The title "CS+Maths" is maintained rather than "AI+Maths" since the former is far more popular than the latter.
If approved, these changes would go into effect for 2019-20 (because prospectus for 2018-19 is already published). However, the AI + Maths degree is potentially still active for 2-4 years after that (until the final student graduates). I therefore also propose a minor update to the AI + Maths degree, to remove the requirement for Automated Reasoning in Year 3. This is the only required course in year 3, and I see no reason why it should be prioritized over any other AI course.

## Details

## Year 1

The degrees are already identical.

## Year 2

CS+Math requires:

- Inf2a, Inf2b
- Three maths courses

AI + Math requires the same courses, plus Inf2d.
Proposal: No changes (the CS+math degree already subsumes AI+math).

## Year 3

CS + Math requires:

- one or two of: SDP, CSLP, SELP
- 20-60 credits of level 9/10 "CS" collection
- PI is optional
- 40-80 credits of 4 specific maths courses
- 0-40 credits of other maths
- 0-10 credits of anything

AI + Math requires:

- Automated Reasoning
- one of: AILP, CSLP
- 10-50 credits of level $9 / 10$ "AI" collection
- last four bullets as in CS+Math

Proposed updates to CS+Math:

- inlcude AILP as an option (i.e., one or two of: SDP, CSLP, SELP, AILP)
- 20-60 credits of level 9/10 Informatics courses (instead of CS courses only)
- no other changes

Proposed updates to AI + Math:

- do not require AR
- increase 10-50 credits to 20-60 credits of level $9 / 10$ "AI" collection


## Year 4

CS+Math requires either:

- 40 credits Hons project (Informatics)
- 30-40 credits from level $10 / 11$ "CS" collection
- 40-50 credits of maths
- 0-10 credits of anything
or:
- 40 credits Hons project (Mathematics)
- 30-40 credits of maths
- 40-50 credits from level 10/11 "CS" collection
- 0-10 credits of anything

AI+Math is the same except using the "AI" collection.
Proposal: Keep the same structure except replace "AI" or "CS" collection with any level 10/11 Informatics course.

