

Extended UG Research Projects as an Option in the 4th Year?

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The facts (as I see them)

- Academic credits:
 - currently 20(S1)+20(S2) out of 120 credits in 4th year.
- Broad range of students/projects/supervisors
 - relevant abilities/skills/knowledge
 - aspirations
- E.g.,
 - original research vs. "academic exercise"
 - "one off" vs. "routine"
 - scope for originality
 - publishable results or other concrete product
 - some students (and supervisors) put in a lot more effort than given credit for
 - potentially excellent training for PhD or other research

A concrete proposal

- Many/most students would continue to do 20+20-credit projects as at present
- Allow the OPTION of extended 4th year projects along the following lines
 - Full year projects
 - 30+30 credits (or maybe 20+40?)
 - with the usual possibility to bail out at half time
 - with reduction in academic load elsewhere
 - By default open only to students with a decent 3rd year mark
 - >65%, say?
 - Open only to supervisors who propose projects that are considered to be "one off", "genuine research", "aimed at publication", etc.
- But let's not (in the first instance) get too hung up on the precise details

- What this proposal does NOT offer:
 - Less work (for neither supervisors nor students)
 - For supervisors it is more work, for students redirected work
- What I believe it does offer:
 - Potential for unitarity violation
 - Work that is more rewarding (satisfying and productive)
 - hopefully for both supervisors and students
 - Genuine research leading to publications or other concrete products
 - Closer approximation to real research training
 - better prepared 1st year PhD students
 - enhancing our reputation when our students go elsewhere
 - a possible selling point for attracting the highest quality prospective undergraduates

Possible objections

- The most enthusiastic students/supervisors are already putting in much more effort than they get credit for
 - so we're already operating this system at "no cost"
- Isn't this all just about trying to get extra teaching credits?
 - No
 - Current 25 hour/project/semester credit is derisory
 - I'm not expecting the effort/credit ratio for the extended projects to be any different
- This proposal is elitist
 - Yes
 - Unashamedly so
- Even larger fraction of final year marks attached to a single activity
 - Increased risk of large fluctuations in marks
 - Potential bias in favour of students who already have good marks?
- ???

Let's not (in the first instance) get hung up on the details

- But at some point details would need to be worked out
- Prior discussions between supervisors and prospective students would be actively encouraged
- Assignment of a particular pair of students to a particular extended project would have to be by mutual consent
- Assessment
 - Would probably require a second external assessor
 - Since the aim is publication, a JOINT REPORT would be regarded as the default
- Increased finance for summer students would be a useful complement to this scheme
- ???
- Miscellany:
 - German system
 - Regrettably phasing out the Diplomarbeit and replacing it with a research project that is full time for "only" six months
 - Irrespective of the merits of his proposal, let's PLEASE allow a bit more time between the publishing of the project descriptions and when the students have to make known their preferences!

Last slide of the originally presented talk

- Case studies, or ...
 - Is he prepared to put his effort (and other people's money) where his mouth is?
- Since coming back from Fermilab, I've supervised four full-year projects
 - all of which continued/will continue over the summer
- Last year:
 - Sophie Redford and Pete Waller - DØ data analysis
 - Spent the summer at Fermilab - will be published by DØ
- This year:
 - Aaron Bundock and Dom Salisbury - ATLAS silicon detectors for PUS
 - Tom Lion and Pete Wijeratne - DØ data analysis
 - Clara Nellist and Luke Thompson - DØ data analysis
- again, all aiming at a "concrete" result

- Of course, one could consider extending the principle of extended opportunities for research projects to earlier academic years
 - but I wanted to keep the scope of this initial discussion focused

A more specific proposal

(Slide added following the discussion at the meeting)

- All students would do a 20-credit project in the first semester.
- By the mutual consent of students and supervisor, there would be the option for students doing full-year projects to drop two lecture courses in their second semester and have 40-credits attached to the second semester of their project.
- 40-credit second-semester projects would have two external assessors.