

**School of Computer Science
Council Meeting Minutes
Tuesday, May 1st, 2018
1:00 – 3:00PM, MCKN 304**

Present – Faculty: L. Antonie, D. Calvert, D. Chiu, R. Dara, D. Flatla, D. Gillis, G. Grewal, A. Hamilton-Wright, S. Kremer, P. Matsakis (Interim Director), J. McCuaig, D. Nikitenko, B. Nonnecke, C. Obimbo, J. Sawada, S. Scott, M. Wineberg, Y. Xiang; **Staff:** D. Byart, C. Hosker, J. Hughes, K. Johnston, G. Klotz, S. Mousseau (Recording Secretary), D. Rea; **Student Representatives:** J. Fraser

Regrets – Faculty: R. Chaturvedi, X. Li, F. Song, D. Stacey, F. Wang, M. Wirth; **Staff:** L. Zweep
Student Representatives: F. Hasson

SPECIAL GUEST:

M. Wells, Dean of the College of Engineering and Physical Sciences, came to discuss the cybersecurity program development and any concerns that the faculty may have in moving forward.

1. Approval of Agenda

Motion: That the agenda be approved (A. Hamilton-Wright / G. Grewal)
In Favour: All. **MOTION PASSED**

2. Interim Director's Remarks – Pascal

P. Matsakis shared a few words about his meeting with the Provost: at the beginning of the meeting, he was given the opportunity to convey the concerns that our student to faculty ratio is going up, that we have a lack of expertise in certain areas, that four additional SoCS faculty are expected to retire within the next two years, and that we have to rely on too many sessional lecturers; however, the Provost redirected the conversation to the development of the cybersecurity program; P. Matsakis then expressed concerns about A. Dehghantanha, who has recently accepted a permanent position elsewhere, and he suggested that another faculty with expertise in cybersecurity be hired as soon as possible in case A. Dehghantanha does not join the School or joins the School but only for a short period of time; the Provost then agreed to a new faculty position at the Associate Professor or Professor level.

P. Matsakis expressed that he is unhappy with how the meeting with the Provost went: the Provost did not seem to be interested in the points he made; she seemed more

concerned with the development of the cybersecurity program. While P. Matsakis did ask for more positions, the Provost made it clear that this would not happen and that she sees the two new senior faculty positions (new expert in cybersecurity and new Director) as adequate.

D. Chiu asked about the email that was sent previous to the Council meeting outlining budget cuts for next year, and about the change in direction since earlier this year. P. Matsakis responded that the email was for the most part a reminder of what was announced two weeks ago, i.e., the fact that the 2018-19 budget would be the same as this year's and last year's, that the School has been asked to zero out the debt, and that therefore guaranteed GTAs would have to be cut. In the end, the budget cuts are reflective of the false assumption that the \$0.5M debt owed by SoCS could continue to be ignored, and that there would be some increment to our operating budget in 2017-18 or 2018-19. Only recently did M. Torcoletti confirm that there was no increment in 2017-18, there would be none in 2018-19, and we should zero out our debt. The email that was distributed was intended to show what the current budget means.

D. Gillis asked how long it would take to pay off the debt if we actually make all these budget cuts. P. Matsakis responded that it could be two to three years. We currently have graduate students with guaranteed GTAs, and this will continue to negatively impact the budget. Our debt would increase if we spent in 2018-19 as much as in 2017-18; this means that we have to spend significantly less if we want to decrease our debt.

P. Matsakis went on to say that he feels it is good that M. Wells came to speak to the Council. He added that she will help if she can, but he is not sure what to expect from the Provost. P. Matsakis reiterated that we cannot continue to offer every new graduate student two guaranteed GTAs a year.

3. Graduate Curriculum Committee – Stefan

S. Kremer introduced the update from the Graduate Curriculum Committee as being informative and notified the Council that a vote will be done online at a later date.

Co-Listing of Courses

The proposal is to co-list CIS*4510 (Introduction to Computer Security) and CIS*4520 (Introduction to Cryptography) as CIS*6510 (Cyber Security Engineering) and CIS*6520 (Advanced Cryptography and Cryptanalysis), which are part of the new MSc in cyber security. Graduate students will have a research component, including a final project, paper and presentation instead of the final exam.

There will be no additional teaching tasks required, but an increased workload to be borne by the course instructor. Indeed, there will be more students in class and a need to differentiate between undergraduate and graduate deliverables and grading. If the new MSc goes ahead, then the number of additional students could be significant, requiring TAs and making it a more time consuming and less desirable course to teach.

MOTION: To approve the addition of CIS*6510 and CIS*6520 as co-listings of CIS*4510 and CIS*4520, respectively.
(C. Obimbo / D. Calvert)

An electronic vote to follow with K. Johnston's help.

Y. Xiang asked about the number of additional students to expect in the courses. P. Matsakis said that since there are 36 seats in the cyber security lab, there could be up to 36 graduate students taking the course; we will probably not have 36 students the first year, but very quickly it will fill up. C. Obimbo added that this year there were more students trying to get into CIS*4110 (replaced next year with CIS*4510 and CIS*4520) after the cap was hit. D. Calvert mentioned that the School can constrain the numbers and prevent them from escalating too high.

A. Hamilton-Wright asked where the TAs will come from. S. Kremer said that perhaps a PhD student would be a good fit, but that it should be discussed further down the road.

D. Flatla asked about any undergraduate students who take the course and go on to be graduate students in the program: how would the duplicate course be managed? C. Obimbo replied that the Committee is working on it.

D. Calvert followed up to say that there were concerns about co-listing mechanisms, and these concerns should be examined first.

Core Graduate Courses

S. Kremer presented the proposal from the Committee for the creation of core graduate courses. At the moment, there are no core courses that are offered on a regular basis for graduate students so that they can plan their schedule of studies. In addition, the current graduate course listings are outdated, narrowly specific, and boutique. The Committee proposes a set of core courses that are offered on a regular basis, represent core topics in computer science and are accessible to students in all of the sub-specializations. The courses recommended by the Committee are:

1. Algorithms: Analysis and Design
2. Data, Statistics, and Experimental Design
3. Artificial Intelligence, Machine Learning and Optimization
4. User Experience and Social Aspects of Computing
5. Software Design, Analysis and Programming

None of these courses are currently offered. They have a lot packed into them, but are designed as introductory survey courses and do not go into depth. The Committee is looking for feedback on whether they should continue to try developing this list of core courses. S. Kremer added that the goal is to create more of a breadth of information rather than focusing on specializations.

Y. Xiang said that the courses look good, but since they would increase the number of graduate courses, wouldn't the workload increase? S. Kremer replied that 2.5 additional teaching tasks should not take up too much of the overall graduate teaching tasks, graduate students need to take two courses outside of their specialization anyway, and any of these five suggested courses would satisfy that requirement. M. Wineberg agreed that the teaching tasks will not grow too much as some of these are based on reading courses already being taught by Y. Xiang and D. Gillis. He added that the course that would be the most work would be Software Design, Analysis and Programming. P. Matsakis agreed that the tasks would not go up too much as only two or three of these courses would be offered every year.

D. Calvert asked if these would be assigned teaching tasks and he was answered in the affirmative. He then asked if it would be considered a faculty member's graduate teaching course for the semester or if faculty members would be able to teach their specialization. P. Matsakis responded that they would be able to teach their specialization, but not as frequently. C. Obimbo said that it would probably be once every six years then. P. Matsakis agreed that it could be every four to six years, yes. C. Obimbo expressed concern that some faculty members have not taught a graduate course in six years. P. Matsakis responded that this should not be the case, as we offer approximately four graduate courses in the fall and four in winter. He added that he thinks the core course additions are reasonable and that it's a good idea.

D. Gillis mentioned that he likes the idea of core courses as well, and he shared that Math & Stats graduate students need to take three or four. D. Chiu asked how the Data, Statistics and Experimental Design course will be different from courses offered by Math & Stats. S. Kremer suggested that the work would be more applied and less on theory. D. Gillis followed up by saying that Math & Stats would never cover this kind of course. M. Wineberg suggested that Math & Stats typically offer courses directed towards psychology and economics students; very few students come from SoCS and the examples are often not relevant to what SoCS students are learning.

S. Scott shared that part of the rationale is to look at how the School wants to reshape the future of SoCS graduate courses. S. Kremer ended the meeting by requesting any comments to be emailed to him.

Meeting adjourned at 3:00PM