

## Department of Information Systems and Statistics

### Baruch Women in Tech

These are some notes from our Brainstorming Session, Thursday, September 15, 2016.

**The group:** Included here are those who attended and some who expressed interest but sent regrets that they could not attend the first meeting.

Raquel Benbunan-Fich	Anna O'Connell
Yuanfeng Cai	Isak Taksa
Kevin Craig	Stan Wine
Al Croker	Grace Zhao
Bill Ferns	Samantha Sunstead (recent Baruch alum)
Linda W Friedman	Meilan Zheng (student)
Marios Koufaris (Dept Chair)	Ana Arias-Gonzalez (student)
Kannan Mohan	

1) **Marios** started with some introductory remarks about this department initiative.

2) **Linda's** report:

Linda gave a brief review of the CUNY summer workshop sponsored by WiTNY (Women in Technology and Entrepreneurship in New York ) and conducted under the leadership of University Provost Vita Rabinowitz and Ann Kirschner (in charge of Strategic Partnerships). Workshop aimed at developing plans for recruitment and retention of women in computer-technology courses and also into major and minor programs of study. Participants represented the various campuses of CUNY. Led by a faculty member from Harvey Mudd, along with presentations by individuals from the National Center for Women & Information Technology (NCWIT). and Northeastern U. Particular focus was on redesigning the intro course to recruit and retain more women into computer science. Thus, while the workshop was valuable, much of it was tangential to what we do in this department.<sup>1</sup>

The Department joined NCWIT's Academic Alliance<sup>2</sup> as an institutional member. NCWIT provides many resources to its members, including research, grants, and literature. Some relevant literature was available at the meeting.

Student recruitment and retention requires us to focus on the question, What do students want? Based on some preliminary research answers will lie within the following dimensions:

- *Focus (jobs)* – Our students love what they do but they, for the most part, are career-oriented. They want to know that there are jobs at the end of their studies and that they will be able to support themselves and their families on their earnings. In addition, they want work that is interesting and engaging.

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<sup>1</sup> Our report, submitted to CUNY at the conclusion of the workshop may be found at:  
[http://linda.proffriedman.net/home/wit/Baruch\\_CAP\\_WITNY2016.pdf](http://linda.proffriedman.net/home/wit/Baruch_CAP_WITNY2016.pdf)

<sup>2</sup> <http://www.ncwit.org/alliances/aa>

- *Meaningful work* – Millennials in general, and women in particular, consider it of critical importance to do work that benefits society. They want to feel that what they do will make a difference in the short and long term.
- *Belongingness* – All students and women in particular, respond well to strategies designed to foster a sense of belonging – to a class, to a program, to a department, to a club, to a discipline. One theory regarding the dearth of women in technology is that they somehow don't feel that this field is for them, that it doesn't match with the way they self-identify.
- *Fun* – Coding is, or should be, fun. You can't do better than a field that is fun AND has jobs! Some of the strategies included here are designed to show more of the fun side of learning to code without degrading the learning process.

Implementing our mission in light of the above can be broadly classified into the following areas: Recruitment; Retention; Support; Assessment.

### 3) Brainstorming

There followed a general discussion following many overlapping and intersecting threads. This is an attempt to organize the ideas within the framework of the above strategies.

*Recruit* Strategically – targeted audiences

- Recruit in CIS 2200 and STA 2000
- Promote CIS 3100 to students in other majors
- Events
  - Meetup events for programming - ways to facilitate networking - promoting external events
  - Speaker series - what kind of jobs are there? Not just coding, design related?
  - Our own women alums

*Keep* (Retention) – pedagogy, curriculum, student support

- Pedagogy – teaching style
- Curriculum – relevant courses, meaningful assignments.
  - Add a recommended track for software development in the CIS major. Update CIS website.
  - CIS 3100 taken too late – what can we do to increase exposure to programming early on? One day coding bootcamp – early on in the program
  - Data structures and algorithms course – is it possible here? Many students are requesting such a course, especially those involved in CUNY Tech Prep (sponsored by the NYC Mayor's Office)
- Student support – foster feeling of “belongingness”
  - Department newsletter for students
  - Our CIS Facebook group<sup>3</sup> has 885 members
  - Partner with students clubs
  - Reaching out on social media
  - Physical space in the department
  - More hands-on labs
  - TAs in labs
  - Tutoring support - checking with Nicy – what is currently offered by SACC and what can be done?

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<sup>3</sup> <http://www.facebook.com/groups/57972470987/>

- A Toastmaster's chapter dedicated to IS/IT
- Embedded (in department) student advisors
- The FWA offers a grant for mentoring for women in finance<sup>4</sup> -something similar for us?
- Student award ceremony

*Support* – partnerships, administrative support, grants

- Organizational support – WITNY, NCWIT, ACM-W, GHC, ...
- Grants Proposals, e.g.
  - CUNY diversity Grant
  - NCWIT seed grant

*Assess* – data collection, trends.

- Follow up with John Choonoo in Institutional Research.
  - Where is the problem? Recruiting or retention?
- Survey students to find out why they 1) did not choose to major in CIS or 2) switched their major from CIS
- Declared majors and actual majors - why the difference? (800 vs. 400) What drives the remaining 400 to other places?

#### 4) Planning

We just skimmed the surface of who will do what. There is still plenty of work to do for this initiative.

- Linda will follow up with John Choonoo (IR)
- Marios will create the student newsletter
- Speaker series – Marios and Anna O'C.
- Anna will also follow up on the Toastmasters idea.
- Kannan and Raquel will work on grant proposals. Kannan and Linda with brainstorm taking multiple paths with the CUNY Diversity Grant.
- Yuanfeng will look into doing something similar to the FWA mentorship
- Kannan will work on a recommended software development track and how to include it on our department website.
- Kannan will identify resources for programming and other relevant topics – collect curated resources from faculty and put them on the website

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<sup>4</sup> <http://fwa.org/initiatives/mentoring-scholarships/baruch-college-mentoring/>