

Human Factors Teaching Assistant Progress Report 2020

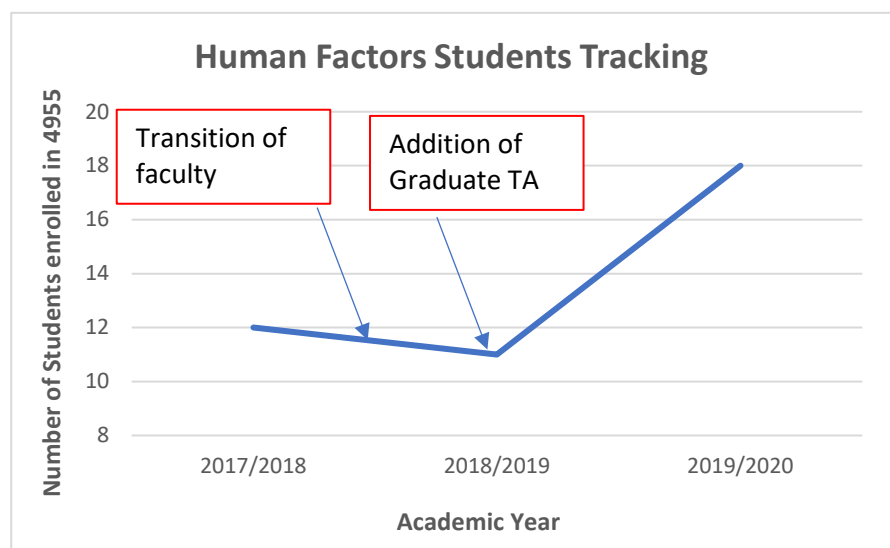
When I took over as the faculty mentor in the 2017/2018 academic year, I set forth to make significant changes to the structure of the certificate program to improve information flow to interested students, enhance the content and productivity of course time to best offload mentoring demands for faculty advisors, and improve overall student preparedness for obtaining jobs after graduation. Much progress has been made towards these goals in 2 years, and this is due, in large part, to the contributions of the graduate teaching assistants in the capstone course for the certificate program- Psy 4955. This support has been essential to not only an increase in the number of students who have completed the course, but also for the critical role of improving the quality of training for students completing the certificate program.

Goal 1) Expansion of Human Factors Certificate Program students and faculty

Subgoal 1 Description: This goal is to improve the communication of the requirements of the independent project to encourage students to get an earlier start and set them up for success, thereby increasing total numbers of students completing the program.

Subgoal 1 Rationale: A common issue that existed during the advisor transition (from Dr. Drews to myself in 2017) was that many students uninformed about the requirements of the independent project, mistakenly thinking it could be completed in their final semester with no research experience or not being aware of the project altogether, causing a subset of students to fail to complete the project. This goal is to improve the communication of the requirements of the independent project to encourage students to get an earlier start and set them up for success.

Subgoal 1 Progress/TA contribution: With the assistance of a TA in the classroom and assisting with feedback, my time was significantly freed up to allow me to make updates to the HF website, meet regularly with advising staff, and meet individually with all interested students to make expectations about the program as clear as possible. The TAs have also provided valuable feedback about preparedness of students in the course so that the requirements for enrolling in the capstone course are appropriate for getting students on the same page for smooth project completion. Together, these differences have allowed us to not only increase our enrollment in 4955 (reflected in the chart), but perhaps more importantly, have made it so that the students come prepared to complete their projects during that semester to successfully obtain the certificate.



Subgoal 2 Description: Expand the faculty mentors assisting with human factors projects through outreach as well as offloading the demands of assisting with the project.

Subgoal 2 Rationale: Aiding a student with an independent project is a large responsibility for any faculty member to take on, and this burden was falling largely on 2-3 faculty members when I took over in 2017 due to limited outreach/conversations of what constitutes as research related to human factors. This goal focused on both reducing demands of faculty mentors involved and improving faculty outreach to increase the number of faculty members mentoring the projects.

Subgoal 2 Progress/TA contribution: First, since initial efforts in the 2017-2018 academic year, I have consulted with all CNS faculty, faculty members in engineering and business, and several social and clinical faculty members within the psychology department to discuss potential advising for HF students. This year, we have 1 student who is being advised by faculty in business and 1 from the social psychology area, and the remainder are still within the CNS area. This time for outreach to faculty would have been very difficult to accomplish if the graduate TA was not assisting with feedback and course content for 4955. Second, course syllabi and material related to writing content and deadlines have been created and edited with student and TA feedback to optimize how course time is spent to help student's complete the project. Importantly, this has allowed us to meet the goal of offloading the demands on faculty mentors. Almost all of the writing training, deadlines, and feedback are conducted during class time, so mentors can focus exclusively on data collection and assistance with analysis.

Goal 2) Increases in the quality of Human Factors training.

Goal description: This goal focuses on improving education (both internally for myself and the students) about statistics, obtaining HF jobs, setting HF-specific internship opportunities, and providing resources to students to generally improve their preparedness for going on the job market in HF/UX fields.

Rationale: Prior to this year, the certificate program has done little outside of providing students with a writing sample and solid letter of recommendation from a faculty member towards the goal of preparing our students for employment in the HF field. As this certificate is largely geared towards students choosing industry over graduate school, efforts this academic year have shifted towards the goal of improving this aspect of the certificate program (largely due to the extra assistance of a fantastic graduate TA).

Progress: Diverging a bit from the models set forth by the honors program (where students are largely choosing a more academic path after graduation), graduate TAs and I have made substantial efforts towards expanding statistical training and conducting outreach with the User experience (UX) and human factors communities to improve knowledge of what employers in the field are looking for in candidates. First, new course content has been added to course to prepare them for a potential career in human factors. The graduate TAs for the course have played a large role in modifying and optimizing the in-course content, including but not limited to valuable statistical labs and training resources. Grant, the current TA, has also been instrumental in aiding students in their statistical understanding of their projects, logging an average of 2.5 hours of meeting time per student outside of classroom time to help with

statistical advising this past semester. The feedback on this consultation and training has been very positive, and moving forward I would like to make a high level of statistical competence a requirement for the TA position. We would also like to continue with the development of statistical training and workshop availability for interested students in the upcoming year. Second, I have worked to set up 2 new internship opportunities related to human factors for student after learning how valuable intern experience is in the field. I learned how different resumes are from the standard academic CV, and now provide students with example resumes from industry. I also provide students with resources including mentorship program links, Slack channels related to research industry positions, and meet-up opportunities that connections in industry have suggested as useful to graduates seeking employment. To continue towards this goal, I plan to expand connections and hopefully add at least 1 more internship opportunity for students, and schedule 1 day each semester to bring in someone in industry to give more interactive advice for students. I would not have been able to make such outreach attempts without assistance in the classroom from the TAs. A brief record of the correspondence efforts afforded by this TA assistance is provided below.

Communication Productivity	
Students completing 4955	15 (8 currently enrolled)
Students I met with from 4955	15
Additional students I met with who are interested in the program	6
Students matched with faculty mentors	18
Correspondences regarding professional development for students	11