

UNIVERSITY OF CALIFORNIA, ACADEMIC SENATE

BERKELEY • DAVIS • IRVINE • LOS ANGELES • MERCED • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

J. Daniel Hare
Telephone: (510) 987-9303
Fax: (510) 763-0309
Email: dan.hare@ucop.edu

*Chair of the Assembly of the Academic Senate
Faculty Representative to the Regents
University of California
1111 Franklin Street, 12th Floor
Oakland, California 94607-5200*

February 24, 2016

AIMÉE DORR
PROVOST AND EXECUTIVE VICE PRESIDENT
UNIVERSITY OF CALIFORNIA

Re: Approval of Master of Human Computer Interaction and Design (MHCID) at UC Irvine

Dear Aimée:

In accordance with the *Universitywide Review Processes For Academic Programs, Units, and Research Units* (the “Compendium”), and on the recommendation of CCGA, the Academic Council has approved UC Irvine’s proposal to establish a new Master of Human Computer Interaction and Design (MHCID) degree program.

Because this is a new degree, and the Assembly of the Academic Senate is not meeting within 30 days of CCGA’s approval, Council must approve the program per Senate Bylaw 125.B.7.

I am enclosing CCGA’s report on its review of the new degree, and respectfully request that your office complete the process of obtaining the President’s approval.

Sincerely,

A handwritten signature in blue ink that reads "J. Daniel Hare".

J. Daniel Hare, Chair
Academic Council

Cc: Academic Council
Senate Director Baxter
Senate Executive Directors



COORDINATING COMMITTEE ON GRADUATE AFFAIRS (CCGA)

Valerie Leppert, Chair
vleppert@ucmerced.edu

ACADEMIC SENATE

University of California
1111 Franklin Street, 12th Floor
Oakland, California 94607-5200

February 18, 2016

ACADEMIC SENATE CHAIR DAN HARE

Dear Dan:

At its February 2016 meeting, the Coordinating Committee on Graduate Affairs (CCGA) voted unanimously to approve a new, self-supporting graduate program leading to a Master of Human Computer Interaction and Design (MHCID) degree within the Department of Informatics, School of Information and Computer Sciences at the Irvine campus. The program requires 36 units of coursework, including eight units of a capstone project. The first course of the program will be offered during the first summer in an accelerated intensive format in person (4-6 days), with the remainder of the classes taken online, with a 2-3 day intensive in-person event directly before beginning the two-quarter capstone course sequence and again at the end of it.

The Master of Human Computer Interaction and Design overlaps very little with any existing programs in the UC. There is also little overlap with the existing MS in Information and Computer Sciences (ICS) at UCI. The existing MS in ICS is heavily focused on theory and research in Informatics and is for students who use the program as a stepping stone towards a Ph.D. program, and it takes 2 years to complete. By comparison, the proposed MHCID program will target working professionals who want to advance their knowledge, skills, and careers in the area of user experience design; the courses are professional in nature, rather than research-focused. Also, the MHCID program will be offered largely online and completed in one year.

All five reviewers praised the quality of the faculty. They also unanimously recognized that the field of human-computer interaction and user experience design is booming and that there is a clear need for such programs. The program will use a “hybrid” in-person and online instruction, and the curricula compares very favorably in breadth and content with some of the top HCI in-person programs in the country.

The reviewers also pointed out several challenges and weaknesses, the most pressing of which were related to the online aspect and cost of the program. UCPB raised some additional concerns regarding lack of clarity with respect to budget and return to aid, and the impact of the program on UCI computing resources. These concerns (and others) were addressed in a revised proposal received in December 2015, and subsequent transmittal from the program, that convincingly responded to reviewer and UCPB concerns. Overall, the committee finds the proposed program is intellectually strong and the program faculty well qualified to deliver it, and supports its approval. Due to the concerns raised by reviewers about program cost, CCGA does recommend close monitoring to ensure that applicant quality is not inadvertently compromised in order to achieve enrollment targets.

As you know, CCGA's approval is usually the last stop of the Academic Senate side of the systemwide review and approval process except when the new degree title must be approved by the President, under delegated authority from the Board of Regents. According to the Academic Senate Bylaws, the Assembly of the Academic Senate (or the Academic Council if the Assembly is not meeting within 30 days of CCGA's approval) must approve new degree titles. Given its status as a new graduate program title on the Irvine campus, CCGA submits it for formal approval by the Assembly of the Academic Senate. For your information, I have included CCGA lead reviewer's final report as an enclosure. If you have any questions, please let me know.

Sincerely,



Valerie Leppert, Ph.D.
Chair, CCGA

cc: Jim Chalfant, Academic Council Vice Chair
Shane White, UCPB Chair
CCGA Members
Hilary Baxter Academic Senate Executive Director
Michael LaBriola, Academic Council Analyst
Kimberly Peterson, Academic Planning Analysis Manager
Chris Procello, Academic Planning and Research Analyst
Gillian R. Hayes, UCI Vice-Chair for Graduate Affairs
Judith S. Olson, UCI Bren Professor of Information and Computer Sciences
Donald J. Patterson, UCI Associate Professor, Department of Informatics
Adriana Jeanett Collins, UCI Senate Analyst

Enclosures (1)

Report for the UC Irvine (UCI) Proposal for a Self-Supporting Graduate Program leading to a Master of Human Computer Interaction and Design degree

Donald Smith, Lead Reviewer
February 8, 2016

The proposal is to establish a new, self-supporting graduate program leading to a Master of Human Computer Interaction and Design (MHCID) degree within the Department of Informatics, School of Information and Computer Sciences at UC Irvine (UCI). The MHCID program targets working professionals who want to advance their knowledge, skills, and careers in the area of user experience design. The program is a one year, primarily online, project-based curriculum that will include lectures, studio and project courses, and a capstone team project as well as substantial emphasis on the production of a professional portfolio of design and user experience work. Faculty within the Department of Informatics, School of Information and Computer Sciences will teach and manage this new program, with some additional teaching provided by lecturers. No additional faculty need to be hired for this degree program, and the program will make use of existing facilities in the School of Information and Computer Sciences and through UCI Extension, and will pay for such facilities via fees generated from the program.

Relationship with other UCI programs, and comparison to other existing programs outside UCI:

The Master of Human Computer Interaction and Design is completely new and overlaps very little with any existing programs in the UC. In the UC currently, there are no professional graduate programs in Human-Computer Interaction specifically, though several UC research focused graduate programs include human-computer interaction as a sub-area of interest. There is also little overlap with the existing MS in Information and Computer Sciences (ICS) at UCI. The existing MS in ICS is heavily focused on theory and research in Informatics and is for students who use the program as a stepping stone toward a Ph.D. program, and takes 2 years to complete. By comparison, the proposed MHCID program will target working professionals who want to advance their knowledge, skills, and careers in the area of user experience design; the courses are professional in nature, rather than research-focused. Also, the MHCID program will be offered largely online and completed in 1 year.

Outside UC there are several MS based programs in human computer interaction and design across the country, including programs at Carnegie Mellon University, HCI Institute, Georgia Institute of Technology, School of Interactive Computing, University of Michigan, School of Information, and the University of Washington, Design-Use-Build program (cross-departmental initiative). These programs are either 1 or 2 year in-residence programs. The curriculum of the proposed UCI MSHCID program compares very favorably to these nationally recognized programs.

Degree requirements:

The program is a Plan II MS requiring 36 units of coursework, including 8 units of a capstone project. The capstone project will serve as the comprehensive exam. The first course of the program will be offered during the first summer in an accelerated intensive format in person (4-6 days). The remainder of the classes will be taken online, with a 2-3 day intensive in-person event directly before beginning the two-quarter capstone and again at the end of capstone course sequence. The capstone project is collaborative, facilitated by the three in-person periods of study in the program.

Faculty overload:

The department currently has 22 full time faculty and 4 full time lecturers, and the proposers project that ~1/3 of the current full time instructional staff will teach one course a year in the program. Based on discussions among the faculty, approximately half of these faculty (i.e., 3 – 4) will teach on overload.

Given the normal teaching load for the faculty in the department (3 - 4 courses/year) impacts on the existing state supported programs should be minimal.

Program cost:

This self-supporting MS program will charge students \$49,500 (all inclusive). This cost structure is based on market analyses and similar costs of comparative programs in the U.S., and the cost of mounting and sustainably offering the program. They provide a comprehensive comparison of costs charged by other comparative MS HCI programs, which substantiates that the proposed cost structure is competitive with these programs.

Financial support for students:

The program will offer 33% of surplus revenue to financial aid (estimated at \$33,000 annually), and an additional \$10,000 for up to 20% of the students each year to support particularly high quality students who may have limited financial means to support for their degrees. The proposers cite discussions with corporate hiring managers suggesting that many companies would pay partially (e.g., \$5,000 to \$10,000) or even entirely if a student could remain employed during the program.

Strengths and need of the proposed program highlighted by the five external reviews:

1. All five reviews praised the quality of the faculty. There were some questions raised by specific strengths in the sub-discipline of visual design, but this was well addressed in the proposers' response.
2. There was unanimous recognition by the reviewers that the field of human-computer interaction and user experience design is booming, creating a very strong need for qualified graduates, and that this demand is likely to continue growing. Thus, there is a clear need for such programs to serve working professionals.
3. The program will serve students from a variety of backgrounds (e.g., technical, business, social science, and artistic educational) from around the country.
4. The program will use a "hybrid" in-person and online instructional format that should strike a balance between enabling cohort building, hands-on training, and accommodation of the ongoing careers of professionals across the US. Thus, the program will serve professionals who may be able to continue working during their studies.
5. The program's curricula compares very favorably in breadth and content with some of the top HCI in-person programs in the country.

Challenges and weakness pointed out by the reviewers and proposers' responses (responses from the proposers at UCI were received December 30, 2015):

- 1) *The most problematical aspect of the program is the use of online courses. The proposal is short on details...* Response: The proposers point out that the reviewer comments on curriculum likely arose because the proposal template format did not allow for sufficient detail, and that while there are questions about online formats, they do not go into as much detail as the reviewers would have wanted. The revised proposal now has additional information about the online course format and structure for each course. Specifically, they now note they will use Canvas (which they indicate is becoming the standard across the UC and many other universities), and that they will also make use of a variety of other tools, including YouTube, Google Drive, Dropbox, Social Media platforms, Slack, Evernote, Asana, etc. They also now indicate that all the courses will include a combination of mini-lectures, readings, discussion (either in person or online as appropriate for the particular course), and hands-on work (either individual or in a group as appropriate for the course). Finally, they further emphasize the 'hybrid' format of the curriculum that will use a combination of intensive

in-person instruction and online instruction. Three of the participating faculty have specific experience in similar 'hybrid' instructional models.

- 2) *There is a need for in-depth, hands-on, studio-based learning in user experience training. How will a mostly online program, with limited hands on and face to face opportunities for design training, meet the need for hands-on learning via studio or labs courses?* Response: This need is clearly recognized by the proposers, and they recognize this is a major challenge in an online delivery model. They also recognize there are trade-offs with a largely online delivery model compared to in-residence programs, and argue that on balance the 'hybrid' instructional model will enable the needed hands-on training. For example, the three on campus intensive sessions will total 2 weeks and ~100 hours of in person instruction (with additional time spent working in groups and networking). This should ensure that cohorts get to know one another and their faculty well. Additionally, because the capstone project is team-based, two of the intensive in person periods are built around that project.

In addition, they note that some program faculty are experts in digital media and online learning, and they will specifically focus on program assessment, quality, and effectiveness to evaluate areas for improvement as the program advances. They have also added an additional \$20,000 per year in the budget to support program assessment and improvement by these faculty experts.

- 3) *Compared to programs offered by some competitors, the proposed program is weak in the area of visual design.* Response: Additional work has been done since the program proposal was originally submitted and approved at UCI (spring 2015). First, several additional faculty and a lecturer have agreed to teach in the program (or have been hired to teach in the program). The additional faculty have design and media arts degrees. The newly hired lecturer has a degree in HCI and Design and has taught in other HCI programs. Second, the proposers responded that complete faculty bios were not a part of the degree proposal template, so it may have been challenging for external reviewers to recognize the backgrounds and skills in design that specific faculty bring to the program. Several participating faculty have degrees in design-related areas, and the program director regularly consults as a visual designer.
- 4) *The program might be too ambitious for most working professionals.* Response: The program will offer a part-time option after the first year and possibly in the first year in exceptional cases. They also provide anecdotal (personal interview) evidence suggesting that employers of working professionals will provide flexibility for employees seeking graduate education to further their career training.
- 5) *How will the primarily online course format accommodate students from different geographic regions (and time zones) across the US?* Response: The online format will be asynchronous, allowing people with a variety of work schedules and in a variety of locations to enroll.
- 6) *The suggested tuition of \$49,500 seems quite high for an online degree.* Response: The proposers argue that a) their market research indicates this is an appropriate price point, though they will watch this closely and change the price as appropriate or necessary. b) Their discussions with corporate hiring managers indicate that many companies would pay for such a program partially or even entirely if a student could remain employed during it. And c) They plan to offer scholarships to students who are not working at companies with such programs and/or who demonstrate exceptional merit. They had already proposed to offer 33% of surplus received to financial aid (cited as the standard rate on the UCI campus). In addition, they have now budgeted an additional \$10,000 for up to 20% of the students each year to support particularly high quality students who may have limited financial means to support for their degrees.

- 7) *The success of the program is likely to depend upon how well it differentiates itself from other online programs, which may charge a fifth of UCI's tuition and fees.* Response: The proposers agree with this comment, and point out that their key differentiators are: a) A substantial in person component, b) A minimum of one faculty member and two TAs per 30-50 person class, which they argue will “ensure high touch and frequent, in depth communication”, c) A high quality capstone experience with an external client, and d) Production of a professional quality portfolio, vetted by faculty and corporate advisors.
- 8) *Some concerns were raised about the possible impact on the existing research based graduate degree programs by faculty teaching on overload in the MHCID, though another reviewer commented that given that there are only two MHCID courses per quarter, it seems plausible that the existing faculty can teach the required courses on overload without overly burdening the existing faculty.* Response: The proposers responded that the department currently has 22 full time faculty and 4 full time lecturers, thus only ~1/3 of the current full time instructional staff would need to teach a single course a year in the program. Given their current teaching loads (3 – 4 courses/year), the additional courses should not greatly impact their ability to deliver high quality instruction in their other programs. Further, based on discussions among the faculty, they expect that approximately half the faculty will teach as overload, keeping them fully involved in the existing programs. They also note that if too many faculty elect to teach on load, then it will be up to the discretion of the chair to make teaching assignments, which means that faculty teaching will be equitably spread across the various programs to maintain their quality.
- 9) *Online course development and marketing costs may be inadequate.* Response: The proposers reexamined their budget and believe that the budget for online course development is generally sufficient; faculty are provided ~\$20,000 for a) developing a course, b) updating, refreshing, and redeveloping a course (to occur every ~3 years), and c) teaching the course. Nonetheless, in response to this concern they have budgeted an additional \$4800 per course each time the course needs to be developed or redeveloped.

UCPB review of the proposal raised some additional comments that were not specifically addressed by the outside reviewer comments and responses above. These UCPB comments, followed by the proposers' responses are summarized here (UCPB review received by CCGA lead reviewer February 8th, 2016):

- 1) *...concerns about the cost of the program, lack of a line item in the budget specifying the return to aid dollars, and whether the pricing might impact the quality and diversity of students.* Response: The proposers provided a detailed response to cost structure analysis and rationale, which was include in their response to the reviewers (noted above) but not part of the proposal package reviewed by UCPB. They also recognized that the budget did not contain the line for return to aid and scholarships, and they have revised the proposal to include them in the budget under a lump sum labeled “scholarships” (line 21). Finally, they indicate that their reinvestment of program revenue to return to aid and scholarships should provide sufficient resources to provide opportunities for qualified students from diverse socioeconomic and underrepresented backgrounds.
- 2) *...it would be reasonable to assume these students might have issues with using the UCI computers remotely that might result in using UCI computer resources staff.* Response: The proposers will monitor this and as needed budget with OIT and the School of ICS technical support group for any additional services. They also anticipate that their faculty as well as students in the program will have a more sophisticated understanding of technologies than might be present in

other degree programs in which technology literacy and engagement is not such a central skillset, thereby reducing possible reliance on UCI resource staff. Finally, they have added an additional budget item of \$10,000 per year (2% increment per year) explicitly to pay for additional technical support (line 42).

- 3) *...is classifying students taking 8 units a quarter as full time acceptable? How will this affect financial aid?* Response: The proposers note that in working with Graduate Division at UCI that students are eligible for the vast majority of federally and internally provided financial aid regardless of units. This information was confirmed through the federal government grant and loan information online (e.g., <https://studentaid.ed.gov/sa/sites/default/files/graduate-professional-funding-info.pdf>).

Summary of changes in the revised proposal (dated December 2015):

- 1) Section 1.3: Timeline has been updated to reflect a year later start date than initially proposed.
- 2) Section 1.5: New text has been included in response to CCGA external review letters regarding the UCSD Coursera agreement.
- 3) Sections 1.7, 2.8: Additional information about the assessment plans for Drs. Black and Ito, focused on ensuring the highest possible quality online instruction.
- 4) Section 2.1: Note regarding online “pre-courses” for people with varying backgrounds.
- 5) Section 3.3: Additional text regarding the need increasingly for user experience professionals to work at a distance, thereby making our format in some ways closer to their likely working environments.
- 6) Section 3.7: Updated faculty list, including specific faculty who are now committed to teaching (and actively developing material for) the new courses as well as background information on Dr. Dannenberg and Mr. DiCosola who are the lecturers to be hired for this program.
- 7) Section 5.A (p. 23): greater detail on video module format in response to external review from CCGA.
- 8) Section 6: Addition of scholarship money for students.

In summary, the proposed program is intellectually strong and the program faculty well qualified to deliver it. Reviewer and UCPB concerns have been adequately addressed in the revised proposal. I have no further questions or issues with the proposal and commend the proposers for being very responsive to the reviews. I recommend its approval.