



Kum-Kum Bhavnani
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*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*

November 21, 2019

**MICHAEL T. BROWN
PROVOST AND EXECUTIVE VICE PRESIDENT
UNIVERSITY OF CALIFORNIA**

Re: Approval of Master of Applied Geospatial Information Systems and Technologies (MAGIST) at UCLA

Dear Michael,

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 Los Angeles' proposal to establish a graduate program leading to a Master of Applied Geospatial Information Systems and Technologies (MAGIST) degree.

Because this is a new degree title, 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 program, and respectfully request that your office complete the process of obtaining the President's approval.

Please do not hesitate to contact me if you have additional questions.

Sincerely,

A handwritten signature in cursive script that reads "Kum-Kum Bhavnani".

Kum-Kum Bhavnani, Chair
Academic Council

cc: Academic Council
UCLA Senate Director de Stefano
IRAP Analyst Procello
CCGA Analyst Harms



COORDINATING COMMITTEE ON GRADUATE AFFAIRS (CCGA)

Ramesh Balasubramaniam, Chair
ramesh@ucmerced.edu

ACADEMIC SENATE

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

November 14, 2019

ACADEMIC SENATE CHAIR KUM-KUM BHAVNANI

Dear Kum-Kum,

At its November 6 meeting, the Coordinating Committee on Graduate Affairs (CCGA) voted 10-0-1 to approve a new graduate Master of Applied Geospatial Information Systems and Technologies (MAGIST) online program. This is a self-supporting graduate professional degree program (SSGPDP) proposal.

The proposed professional MAGIST program will prepare students for work in industry and the public sector through a curricular emphasis on methods and theory commonly used in mapping and GIS applications. MAGIST will cater primarily to (1) full-time students seeking graduate-level professional education and (2) working professionals, some of whom may enroll as part-time students. All courses for the new program will be offered and delivered online so that professionals can complete the degree conveniently, economically and remotely.

The curriculum will offer coursework that brings academic rigor to topics required for GIS professionals in business, engineering, planning, data and information management, as well as government and non-profit organizations. The new program will complement, broaden, extend and reinforce the linkages between UCLA and the community, many of which are built upon the successful online certificate in GIS already offered by the Department in conjunction with UCLA Extension. The degree will require a capstone project that will involve working closely with a faculty advisor and an external (industry, public sector, or scientific community) partner to solve a real scientific or business problem.

CCGA had the proposal reviewed by four qualified faculty: two internal (UC) reviewers and two external (non-UC) reviewers. The reviewers were unanimous in their support and need for the proposed program, as well as its academic rigor. They also raised some concerns and suggestions and these have been adequately addressed by the proposers in their response and clarifications. In particular, the reviewers made recommendations for improving diverse recruitment for the program and support for low-income students. UCPB was also favorably disposed to the proposal.

As you know, CCGA's approval is 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. I submit this for your review and have enclosed the proposer's response. Please do not hesitate to contact me if you have further questions regarding the proposal.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Balasubramaniam', with a long horizontal stroke extending to the right and a small flourish at the end.

Ramesh Balasubramaniam
Chair, Coordinating Committee on Graduate Affairs (CCGA)

cc: Mary Gauvain, Academic Council Vice Chair
CCGA Members
Hilary Baxter, Academic Senate Executive Director
Michael LaBriola, Academic Senate Analyst
Chris Procello, Academic Planning and Research Analyst
Robin L. Garrell, UCLA Vice Provost and Dean
April de Stefano, UCLA Senate Executive Director
Estrella Arciba, UCLA Senate Analyst
Michael Shin, UCLA Professor, Department of Geography
Nicholas Burkhart, UCLA Academic Administrator, Department of Geography

Enclosures (1)



DEPARTMENT OF COMPUTER SCIENCE

SANTA BARBARA, CA 93106-5110

November 14, 2019

TO CCGA

FROM AMR EL ABBADI (LEAD REVIEWER)

Proposal to Establish a new self-supporting, Online Professional Master of Applied Geospatial Information Systems and Technology (MAGIST) graduate degree program.

In this report, I summarize my reading of the proposal. This was written after consultation with four external reviewers: two non UC reviewers and 2 UC reviewers and several rounds of communication with the proposers of MAGIST. The reviewers are:

1. Kate Beard Spatial Informatics School of Computing and Information Science, University of Maine
2. Maggi Kelly University of California – Berkeley Dept of Environmental Sciences, Policy and Management
3. Werner Kuhn Professor of Geography and Director, Center for Spatial Studies, University of California, Santa Barbara
4. Shashi Shekhar McKnight Distinguished University Professor, Dept of Computer Science, University of Minnesota

The reviewer comments were largely positive, although they did raise some concerns. UCPB has not yet reviewed the proposal. All comments were shared with the proposers who were given an opportunity to respond to the concerns raised. The proposers responded in detail, and made several clarifications and modifications to the original proposal. I will address the various issues raised next.

Introduction.

The UCLA Department of Geography proposes a new, self-supporting, online professional Master of Applied Geospatial Information Systems and Technology (MAGIST) graduate degree program to serve the large number of students and professionals seeking a terminal degree in geographic information systems (GIS), mapping and geographic data science. The proposed MAGIST will cater primarily to (1) full-time students seeking graduate level professional education and (2) working professionals, some of who may enroll as part-time students. All courses for the new program will be offered and delivered online so that professionals can complete the degree remotely. Students enrolling full-time can complete the program in three quarters of study; part-time students must be enrolled in at least one course per quarter. All nine required courses are core MAGIST graduate courses. Other UCLA graduate-level and upper

division courses are not open to enrollment by MAGIST students and may not be counted toward degree requirements.

Evaluation

The external reviewers were unanimous in their support and need for the proposed program, as well as its academic rigor. They also raised some concerns and suggestions and these have been adequately addressed by the proposers in their response and clarifications, which will be appended as an Appendix to the proposal. I will address some of these concerns next.

1. **Diversity and On-line technology hurdles:** The reviewers point out some limitations in the outreach efforts and proposed some approaches. The proposers will adopt some of these outreach suggestions though these outreach efforts would be more oriented toward community service than recruitment of students as the MAGIST program will be primarily drawing from existing professional ranks. The focus will be on first-generation university graduates and early/mid-career professionals who belong to underrepresented communities, and who are working to advance the interests of such communities and areas throughout the region.

They will also prioritize working closely with UCLA Graduate Division to draw from the diversity efforts of professional organizations. Furthermore, the program has sufficient funds in the MAGIST reserve (supported by accumulated revenue from the existing UCLA GIS certificate program) to cover the costs of the first two years of the MAGIST Scholars Program. Moreover, the ten percent (10%) return-to-aid target will be used to promote and ensure the diversity of the MAGIST program in subsequent years. Furthermore, any student receiving scholarship funds or financial aid from the MAGIST program will be eligible to submit a need-based petition to increase their scholarship amount to cover the cost of a compatible personal computer and the cost of a high-speed Internet connection throughout the term of their scholarship.

2. **Curriculum Issues:** Diverse concerns were raised. I address them next.
 - A. The MAGIST curriculum is fixed by design to ensure consistency and quality of the educational experience for students. The proposers feel strongly that this will promote and facilitate MAGIST student cohesion, collaboration, cooperation, and hopefully, relationships that extend beyond the degree itself. This model will also give those students with more experience the opportunity to share their knowledge and experience with others who have less experience.
 - B. MAGIST coursework will NOT overlap significantly with existing UCLA GIS certificate courses. Furthermore the UCLA Department of Geography conducts comprehensive curriculum planning and is aware of the need to ensure that the MAGIST and certificate programs remain separate and sequential. To that end, the Department of Geography articulated further the curriculum and syllabi for the MAGIST courses this summer (i.e., Summer 2019) to ensure this separation.
 - C. The original proposal contained an error, and the number of courses offered per quarter during the academic year was explicitly changed to three.
 - D. **Societal and Economic Issues:** The proposers made sure that the MAGIST curriculum incorporates and integrates a broad range of social, political, economic, environmental and cultural issues. Each course within the MAGIST program includes weekly or bi-weekly assignments that are focused on the practical application of geospatial techniques to relevant issues and real-world problems.

- 3. Faculty Overload.** The proposers have established a reserve from revenues generated from the existing UCLA GIS certificate program that will be used to launch the MAGIST program. All ladder faculty teaching in the MAGIST program will therefore be compensated on an overload basis. The proposers draw a clear distinction between course development and course delivery/instruction. Each course within the MAGIST curriculum will be developed in close collaboration with relevant UCLA Department of Geography ladder faculty. Once a course is developed, a ladder faculty or a qualified non-Senate faculty instructor to lead any course as needed. A list of tenured faculty and the MAGIST Academic Administrator have committed to developing and leading the each of the MAGIST courses.

UCPB Evaluation

UCPB evaluated the MAGIST proposal and was, in general, supportive of the proposal. UCPB however, did raise several concerns about the budget and asked for several clarifications. These were discussed with the proposers and adequate details were provided. Of particular importance here is the fact that the program has significant revenue reserves from prior certificate programs and summer sessions. Furthermore, MAGIST faculty have significant internal experience and resources for on-line education, unlike other new programs that depend on outside expensive online program management firms. The proposers also promised to provide letters of support from MAGIST external partners. These letters have been requested and should be provided in due course.

Conclusion

Given the need for Geographic Information Systems and Technologies and the strong positive endorsement of the 4 external reviewers and the adequate response of the proposers to the concerns raised by the reviewers and UCPB, pending approval from UCPB I recommend moving forward with MAGIST.