

October 8, 2019

PRADEEP KHOSLA
CHANCELLOR

ELIZABETH SIMMONS
Executive Vice Chancellor

SUBJECT: Senate Council Endorsement of Online Master's Degree Programs

Dear Pradeep and Elizabeth,

Following discussion of fully online graduate degree programs at Graduate Council during the 2018-2019 academic year, Senate Council established an ad hoc to recommend a framework and guidelines for the development of online degrees at UCSD. The Senate Online Degree Ad Hoc report is attached.

At its September 30th meeting, Senate Council unanimously passed a motion endorsing online Master's degree programs at UCSD. Council also endorsed the Ad Hoc report, which details the administrative support that will be necessary to ensure quality online degree programs. The Academic Senate looks forward to learning how the Administration will provide this support.

On October 1st, Graduate Council reviewed the report and expressed general support for the recommendations. They will continue to develop a guidance document for departments preparing online degree proposals, based on the Ad Hoc's recommendations.

Best,



Maripat Corr, Chair
Academic Senate, San Diego Division

Enclosure

cc: Steven Constable, Divisional Senate Vice Chair
Robert Continetti, SAVC–Academic Affairs
Lynn Russell, Graduate Council Chair
Lori Hullings, Senate Associate Director
Ray Rodriguez, Senate Director

San Diego Division of the Academic Senate
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Report of the Senate Online Degrees *Ad Hoc* Group

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September 20, 2019

Executive Summary: Guidelines for Online Master's Degree Programs at UC San Diego

An *ad hoc* group evaluated the role of fully online Master's degree programs in the academic mission of UC San Diego, and concluded that these programs could benefit the University under well-managed conditions, described in a set of eight guidelines. These guidelines address concerns related to online programs, especially in the context of self-supporting graduate professional degree programs (SSGPDPs), and aim to maximize alignment of the revenue generation goals of SSGPDPs with the educational goals stated in the mission of UC San Diego. The guidelines take two forms.

First, the *ad hoc* group described guidelines for institutional support for online Master's degree programs. These include recommendations that the campus adopt a format-neutral stance toward incentives and compensation for course development and implementation, that course design incentives prioritize the promotion of quality and reduction of burden over personal income, and that the University articulate how it will replace services sometimes furnished by third party providers and ensure robust technical and support services to new programs.

Second, the *ad hoc* group described guidelines for proposers of online Master's degree programs. *Inter alia*, these request that proposers articulate a robust educational rationale for new programs, that they deploy modest format-neutral incentives and compensation for instructors, that they collaborate with campus resources like the Teaching + Learning Commons to design high quality courses, that courses use scalable expert feedback, that early-developed programs begin with smaller classroom environments, that steps be taken to minimize intellectual and financial risks to online learners, and that particular care will be taken to promote diversity in online programs.

The *ad hoc* group concluded that, if implemented in keeping with these guidelines to ensure high quality, online Master's degree programs may allow UC San Diego to reach new categories of learners who otherwise might be unable to attend campus classes, without incurring risk to students, faculty and TAs, or the reputation of UC San Diego.

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Introduction

During the summer of 2019, an *ad hoc* group comprised of seven Senate Faculty was asked to evaluate the role of fully online degree programs in the academic mission of UC San Diego. The *ad hoc* group was charged with developing guidelines and a framework for agreement between the Senate and the Administration on the long-term strategy for implementing fully online degrees at UC San Diego (see Appendix 3 for the *ad hoc* group's charge and membership). This report responds to the *ad hoc* group's charge in two parts. First, it provides a preliminary assessment of whether UC San Diego would benefit from pursuing fully online degree programs, including a recommendation that the University limit the scope of the discussion to Master's degree programs. Second, the *ad hoc* group proposes guidelines for the implementation of online Master's degree programs in the event that they are pursued. These guidelines, summarized in Appendix 1 (Institutional Support for Online Master's Degree Programs) and Appendix 2 (Guidelines for Proposals to Establish Online Master's Degree Programs), focus on recommended standards and requirements for developing, supporting, and evaluating fully online Master's degree programs. They are intended for faculty and academic units who wish to propose online Master's degree programs, Senate reviewers, including the Graduate Council, charged with evaluating new graduate degree program proposals and reviewing established graduate degree programs, and campus administrators who might provide infrastructure and support to online programs.

To arrive at these guidelines, the *ad hoc* group drew on multiple sources of data, including documents generated by the Graduate Council during their review of online degree proposals in 2018-19, academic reviews of existing online degree programs, and conversations with faculty and administrators both at UC San Diego, and at institutions with high-profile online programs, including University of Colorado, Harvard, Georgia Tech, and UC Berkeley (Appendix 4). Because these discussions and previous discussions of online learning at the University have generated many significant outcomes that cannot be exhaustively described in a single document, the *ad hoc* group includes in its recommendations that UC San Diego consider creating an advisory group on online education, which might act as a live repository of institutional knowledge.

Rationale for the Establishment of the *Ad Hoc* Group

Over the course of the 2018-19 academic year, the Graduate Council considered a proposal submitted by the Halicioğlu Data Science Institute, in partnership with the Department of Computer Science and Engineering, to establish an online self-supporting graduate professional degree program (SSGPDP)¹ leading to a Master of Data Science (MDS-online). This proposal represented the first-ever online graduate degree program proposal under consideration at UC San Diego, and therefore raised concerns from the Graduate Council about the broader issues surrounding the role of online degree programs in graduate education at UC San Diego. In the end, the Council judged that it could not support the MDS-online proposal, and that the University should not consider other online degree program proposals before engaging in a broader discussion about the academic rationale for establishing online degree programs at UC San Diego. The Council's desire for a broader discussion about the future of

¹ Self-supporting means that all program costs, both direct and indirect, are covered by revenues generated by the program such as student charges or from alternative revenues that are not disallowed funds (e.g. state general funds and tuition and fees from state-supported programs). Adapted from the University of California's Self-Supporting Graduate Professional Degree Programs Policy (<http://policy.ucop.edu/doc/2100601/SSGPDP>)

online degree programs was strengthened by a second proposal submitted by the Skaggs School of Pharmacy and Pharmaceutical Sciences in Spring 2019 to establish an online SSGPDP. In response, Senate Council agreed to form this *ad hoc* group to develop a framework and a set of guidelines for fully online degrees.

1. Prospects for Online Graduate Education at UC San Diego

The *ad hoc* group considered whether UC San Diego would benefit from pursuing online degree programs. It concluded that online Master's degree programs could benefit UC San Diego under well-managed conditions, provided that there is a sound educational rationale for approved degree programs. The *ad hoc* group restricted its discussions and recommendations to Master's degree programs given existing precedents in the UC system, and because interest at UC San Diego has thus far been limited to Master's degree programs (see Appendix 5 for a list of approved online Master's degree programs within UC). It recommends that if there is interest in Bachelor's or doctoral programs in the future, the questions considered here should be revisited. While the *ad hoc* group finds that online Master's degree programs have the potential to benefit the University, there are multiple risks to faculty, students, and the institution, particularly in the context of SSGPDPs. It is the goal of the guidelines proposed by this *ad hoc* group to mitigate these risks, provide guidance for departments, and enable Graduate Council to conduct informed review of proposals for new online programs.

Quality is a recurrent topic of concern in discussions of online degree programs. Online degree programs are relatively new, and publicly-facing assessments of program quality are just beginning to emerge. Also, Massive Open Online Courses (MOOCs - not degree programs) have created a negative stereotype of online learning, which likely contributes to the worry that online degree programs may negatively impact UC San Diego's instructional quality. At UC San Diego, the two online programs that have been proposed thus far have both been SSGPDPs, raising worries that financial incentives may outweigh educational considerations in the creation of these programs. This has only amplified existing concerns regarding quality.

The guidelines described below discuss strategies for promoting quality online MS program design and instruction at UC San Diego. Also, they describe ways in which the financial benefits of online SSGPDPs might be placed into alignment with the educational goals of UC San Diego to minimize the potential for conflict among these interests. The guidelines emphasize mechanisms for promoting quality at the time of course creation, for supporting degree programs institutionally, for monitoring and assessing program performance, and for minimizing faculty incentives that do not directly align with the academic mission of UC San Diego. They also discuss the role of faculty and teaching assistants (TAs) in online learning, and ways to mitigate risks to online learners. And finally, they recommend that UC San Diego harmonize campus guidelines for incentives and compensation in a format-neutral way. More generally, the *ad hoc* group asked how UC San Diego might promote these benefits while avoiding risks associated with the online format.

2. Proposed Guidelines for Online Degree Programs at UC San Diego

I. Rationale: A central question raised by Graduate Council in their 2018-19 discussions of online learning was whether online degree programs offer educational benefits that brick and mortar programs do not - i.e., if there are educational benefits to this shift in instructional format, in addition to potential financial benefits. The online *ad hoc* group considered this question and identified multiple ways in which online learning might confer unique educational benefits, if done well, including possible improvements to pedagogy and reaching new categories of learners. For example, multiple sources with experience administering online programs

indicated that these programs offer the opportunity to reach highly motivated learners who might not otherwise be able to pursue an on-campus degree program at UC San Diego, either due to existing employment, family obligations, health, or other considerations. Also, online programs may offer the possibility of reaching a larger cohort of learners than on-campus programs. Finally, for some students, online learning may offer unique benefits associated with the format, including the ability to pause and rewatch lectures, read transcriptions of unfamiliar terms, and watch at different playback speeds, etc.

The *ad hoc* group recommends that future proposals should begin with a strong educational rationale for creating a new degree in an online format, specifically, rather than in a brick and mortar format. If the proposed online program augments or replaces an existing brick and mortar program, the proposal should explain how this change will benefit the educational mission of UC San Diego. Further, if the potential for financial benefits are a central motivator, proposals should discuss this explicitly, explaining how future revenues might benefit existing activities on the UC San Diego campus.

II. Faculty Incentives and Compensation: The stated mission of UC San Diego is to “transform California and a diverse global society by educating, generating and disseminating knowledge and creative works, and engaging in public service.” To ensure that academic programs align with this mission, it should act as the primary motivator for program creation and continuance. In keeping with this, the *ad hoc* group concluded that faculty incentives for class design should remain modest, and should be harmonized with existing incentive standards for on-campus learning. The *ad hoc* group uses “incentives” to refer to funding intended to motivate or encourage the development of new courses, and “compensation” to describe payments received for teaching courses. Recently, the UC San Diego Executive Vice Chancellor published a document entitled “Guidelines for Revenue Sharing Payments Related to Executed Online Course Development Agreements”.² While these new guidelines harmonize faculty incentives and compensation for online offerings across campus, the *ad hoc* group recommends that the campus take two additional steps, to (1) revise these guidelines to harmonize incentives and compensation across campus in a format-neutral way (that emphasizes relative effort rather than format of instruction), and (2) structure these guidelines such that they favor incentives that promote quality and reduce the burden of new course design (e.g., course release, GSR support) over those that take the form of personal revenues (e.g., summer ninths).

Currently, incentives vary considerably across different initiatives on campus. For example, the 2019 Changemaker Faculty Fellows Program awarded up to \$10,000 to support the creation of new classes, including expenses such as professional development, course development, research, and implementation costs. Similarly, UC San Diego’s 2019-20 Course Development and Instructional Improvement Program (CDIIP) offered incentives of up to \$5,000 for individual projects to fund “equipment and undergraduate/graduate student costs”. Large team projects included up to \$50,000 to teams of faculty to cover “faculty release time, faculty summer support, summer undergraduate/graduate student support, support for Educational Technology Services or other technical assistance, materials.” Meanwhile, the *ad hoc* group noted that previous UC San Diego online degree proposals included incentives of \$15,000 - \$40,000 for the creation of a single four-unit course, plus compensation for instruction beyond a faculty member’s regular teaching workload (hereafter referred to as “overload”).

The *ad hoc* group also recommends that UC San Diego establish format-neutral standards for instructional compensation, and that proposers exercise moderation in the use of

² <https://digitallearning.ucsd.edu/files/Online-Course-Development-Guidelines---August-2019.pdf>

overload compensation to motivate faculty involvement in online programs. Although teaching SSGPDP classes on-load (i.e., as part of a faculty member's regular teaching workload) may impact state-supported offerings, large amounts of overload teaching may also impact a faculty member's ability to fulfill these tasks, and may also unduly influence their motives for designing and teaching online classes. The *ad hoc* group notes that, independent of format, if academic units wish to compensate instruction on-load but judge that it does not merit full on-load credit, it is possible at UC San Diego to consider alternatives including partial credit, or full credit during an introductory period, followed by partial credit.

III. Quality Program and Course Design: As recognized by existing policies that govern the approval of online (i.e., "R" courses), there are specific challenges and learning curves for those developing and implementing online courses and programs, suggesting that UC San Diego should take a proactive approach to promoting quality in online offerings.

In discussions with faculty at peer institutions, the *ad hoc* group noted that significant costs (up to 60% of revenues) are currently directed toward third party contractors (e.g., 2U) to administer online offerings, and that these expenditures are in addition to the services offered by campus staff. Unexpected burdens reportedly include administrative activities such as academic accommodations, admissions, course enrollment, refunds, etc. These interviews suggest that, to be successful without third party contractors, new online programs will require substantial staff support. In relation to this, the *ad hoc* group was tasked with evaluating the impact of the University's recent decision to deliver online courses on a custom open source platform (i.e., Open edX).^{3,4} The *ad hoc* group sees this move as an important opportunity for the University to create efficiencies and cost reductions by supplying administrative services in-house. UC San Diego has the opportunity to create programs that match peer institutions like UC Berkeley in quality (and services rendered) while doing so at a reduced cost. This may allow new programs to achieve solvency more readily, even while delivering more resource intensive programs and containing costs to learners. However, before new proposals are considered, the University must make explicit how the services offered by third party contractors, e.g., edX, Coursera, and 2U, will be replaced at UC San Diego by articulating which services are affected, and whether they will be the responsibility of individual academic units, or a centralized unit on campus. The *ad hoc* group determined that these services may include marketing and recruitment, admissions support (e.g., counseling, recruiting, assistance with applications), student support, career counseling, placement, etc.

To reduce the burden on individual programs and create institutional efficiencies, the *ad hoc* group recommends that UC San Diego augment investment in services provided by the Teaching + Learning Commons (TLC) to support the creation, maintenance, and assessment of online courses. This should include ongoing, formal support for online TAs, to supplement traditional departmental TA support. Following existing procedures, new online (i.e., "R") classes should be reviewed and receive a letter of support from Digital Learning (DL) in TLC. New programs should integrate the TLC's resources into their proposals, including online self-paced mini-courses to develop faculty expertise in online teaching, online training for students taking online courses, training and support for online TAs, and evaluation of online courses using the Quality Matters Rubric.⁵ Finally, the TLC should be tasked with supporting the implementation of

³ <http://adminrecords.ucsd.edu/Notices/2019/2019-7-19-2.html>

⁴ <https://open.edx.org/>

⁵ https://digitallearning.ucsd.edu/_files/StandardsfromtheQMHigherEducationRubric.pdf

technologies that promote academic integrity, following standards established by the Trusted Seal Rubric.⁶

Online degree programs require institutional support extending beyond the course level. Such services may relate to student advising, admissions processes, community development, support for students with disabilities, support for students with exceptional life circumstances, technical support, etc. The *ad hoc* group recommends that the TLC be resourced to help provide these services. This may include the creation of a University committee or advisory panel composed of faculty, staff, and administrators with knowledge relating to online learning, and the history of related discussions at UC San Diego. Such a group might serve an advisory function in the creation of new resources (e.g., online course and teaching evaluations), while also serving as a repository of institutional knowledge regarding online learning.

IV. Faculty & Teaching Assistant Involvement: The active involvement of faculty and TAs in instruction is essential to high quality graduate education. Pre-recorded lectures ensure that students will benefit from UC San Diego faculty expertise. But typically graduate education also involves direct interaction between students, faculty, and TAs in the classroom, posing special challenges to large online classes.

Published data and interviews with faculty at peer institutions indicate that class size (and by extension, student interaction with faculty and TAs) impacts student success and learning. Whereas UC Berkeley reports graduating 95% of students in their Online Master of Information and Data Science program, which features class sizes of approximately 30 students, published reports indicate that students in Georgia Tech's Online MS in Computer Science program (with larger class sizes) finish at a rate of 62% (Goodman et al., 2018, 2019).⁷

⁸ According to faculty at UC Berkeley, their high completion rate is a measure of program quality, and is due, in part, to the ability of faculty and TAs to detect learner difficulties and to intervene on a case-by-case basis, a difficult task in larger online environments. In addition, smaller classes reportedly allow students to develop closer relationships not only with faculty and TAs, but also with other learners, providing a natural support network that is more difficult to obtain in larger online environments.

The *ad hoc* group sees a natural tradeoff between program size, program cost, and quality, and that although increased size may have the benefit of reduced cost, it may also compromise quality and lead more students to abandon their studies and report a negative experience at UC San Diego. Because injuries to reputation are difficult to repair, the *ad hoc* group recommends that UC San Diego begin its foray into the online sphere cautiously, by initially developing programs that differ minimally from brick and mortar programs and feature smaller class sizes and significant faculty and TA involvement, later moving into larger classroom sizes if the smaller designs are successful. The *ad hoc* group notes that larger classrooms may be appropriate in some contexts, but that additional caution should be used in approving programs that feature large student to faculty ratios. Smaller online classes permit faculty and TAs to maximize interaction with students through video conferencing, chatroom hours, or in-person meet-ups that include local students, while also making it easier for students to develop rapport and learn from one another. More generally, smaller online classes minimize

⁶ <https://academicintegrity.org/trusted-seal/>

⁷ Goodman, J., Melkers, J., & Pallais, A. (2019). Can online delivery increase access to education?. *Journal of Labor Economics*, 37(1), 1-34.

⁸ Goodman, J., Melkers, J., & Pallais, A. (2018). An Elite Grad-School Degree Goes Online. *Education Next*, 18(3).

risks to quality or institutional reputation, while allowing the University to reach new categories of learners, and leaving open the possibility of building program size over time. For example, although UC Berkeley limits individual classes to ~30, their Online Master of Information and Data Science program currently hosts approximately 500 enrolled students, equal to the number targeted by the 2018-19 MDS-online proposal at UC San Diego. Program design, including faculty-student ratio, should be grounded in the program rationale (**I. Rationale**) and compelling arguments for the value of the proposed design should be provided.

A final concern is that faculty may devote too much time to online instruction, with possible impacts on state-supported activities or research (a possible concern for any SSGPDP). One remedy is for online SSGPDP instruction to be conducted on-load, creating natural limits on instruction time. However, this strategy would require employing additional faculty to ensure that state-supported programs are not affected. This is the model deployed by UC Berkeley. An alternative is to strictly limit the number of online classes taught by faculty members.

V. Diversity: Proposals should describe how the proposed online programs will impact the representation of diverse groups at UC San Diego both online and on campus. Published reports (e.g., Joyner, 2017)⁹ note that online programs attract different demographic populations relative to equivalent on-campus programs. Proposals should discuss these differences and their specific recruitment goals in the context of the rationale for the program being proposed (**I. Rationale**). Graduate Council, meanwhile, should monitor whether programs meet their diversity goals, while also monitoring the learning outcomes of underrepresented groups to assess whether their experience in an online program has a net positive or negative impact.

Proposals should create a plan for managing large numbers of applicants during admissions, and how this will impact diversity. Members of underrepresented minorities may underperform on standardized measures of performance such as GRE (Miller & Stassun, 2014; Miller et al., 2019),^{10,11} and may have other life experiences that are difficult to capture with quantitative measures. Programs should plan how they will consider diverse measures of merit in admissions, such as time spent in relevant employment, patents, units of scientific output, or other experiences that might be common among targeted demographics. Also, online degree program proposals should include how the under-represented students will be supported, and whether fellowships aimed at promoting diversity will be deployed.

VI. Graduate Admissions: All proposals for new online graduate programs should discuss how graduate admissions will be conducted for the proposed program and who will conduct the review of files. A plan for managing graduate admissions should be described if a large volume of applications is anticipated. The *ad hoc* group assumes that some programs will consider very large numbers of applicants, which may make it difficult to use non-quantitative metrics of applicant quality (e.g., work experience, research experience, letters of recommendation) or contributions to diversity (see **V. Diversity**). New proposals should describe how these aspects of applicant files can be captured.

⁹ Joyner, D. A. (2017, April). Scaling expert feedback: two case studies. In Proceedings of the Fourth (2017) ACM Conference on Learning@ Scale (pp. 71-80). ACM.

¹⁰ Miller, C. W., Zwickl, B. M., Posselt, J. R., Silvestrini, R. T., & Hodapp, T. (2019). Typical physics Ph. D. admissions criteria limit access to underrepresented groups but fail to predict doctoral completion. *Science advances*, 5(1), east 7550.

¹¹ Miller, C., & Stassun, K. (2014). A test that fails. *Nature*, 510(7504), 303-304.

Discussions with faculty at peer institutions suggest that large enrollment numbers may impose serious additional workloads on staff during admissions, which may be exacerbated by the diversification of student backgrounds. The *ad hoc* group recommends that proposers consult with existing programs to assess best practices for admissions, and the expected staffing requirements. Online degree proposals should describe a specific resourcing item to accommodate the admissions and registrar activities created by the new numbers of enrollees.

VII. Risks to Learners & UC San Diego: Proposals should describe how risks to online learners will be mitigated. Risks to online learners come in at least two forms: intellectual and financial. First, the online format may make student struggles less visible to faculty, TAs, and fellow classmates, resulting in poorer outcomes. Risks may be especially acute to students undergoing mental or physical health difficulties. Also, risks of falling behind may be exacerbated by demographic differences in online students. Joyner and Isbell (2019)¹² report that online learners are more likely to represent an older (median age = 38), actively employed (90%), demographic who may be less practiced at daily study, may lack knowledge of new educational technologies, and may have greater weaknesses upon entry to a graduate program. For larger student-faculty ratio programs, Joyner (2017)³ notes that in online classes, “learning at scale has largely deemphasized expert evaluation and feedback”, only adding to these risks, and emphasizes the success of expert evaluation over automated procedures.

The *ad hoc* group recommends that online programs deploy an expert feedback model (Joyner, 2017)³ though exceptional cases may exist in which non-expert feedback (e.g., peer review) may be appropriate. Proposals should document in their rationale (**I. Rationale**) how learning objectives and target audience needs will be met using available assessment and feedback options. Expert feedback involves frequent live feedback from faculty and teaching assistants regarding assessments and difficult materials, not just automatically graded assignments and feedback. This can be accomplished through small class sizes, through large numbers of in-residence TAs, or by employing past online learners as offsite TAs (Joyner, 2017).³ Proposals should explain how scalable forms of feedback and guidance (e.g., peer review, automation, adaptive learning, etc.) will provide quality learning and assessment experiences for the target student population. Relatedly, the *ad hoc* group recommends that proposals describe resources for supporting the non-academic needs of online learners, including support for withdrawing from classes, academic exceptions, and supporting online learners with disabilities. This may be accomplished at the level of the academic unit, or the campus.

A second risk to online learners, particularly if completion rates are low, is financial. Data from the UC San Diego micromasters in data science (offered through edX),¹³ as well as the Georgia Tech online master’s degree program, indicate completion rates of approximately 60% for online classes, though other programs, which deal in smaller numbers of students, like the UC Berkeley model, feature much higher completion rates, signaling reduced risk to learners. Pending a demonstration that course completion rates for online programs are comparable to on campus numbers, the *ad hoc* group recommends that online programs deploy a progressive reimbursement schedule for withdrawals, and that students be made aware of this schedule during enrollment. According to the University Registrar, alterations to the standard reimbursement schedule are allowable in the context of SSGPDPs, though they must include

¹² Joyner, D. A., & Isbell, C. (2019, June). Master's at Scale: Five Years in a Scalable Online Graduate Degree. In Proceedings of the Sixth (2019) ACM Conference on Learning@ Scale (p. 21). ACM.

¹³ <https://www.edx.org/micromasters/data-science>

increments of either 100%, 90%, 70%, 50%, or 25%. Currently, such modifications are not allowable for state-supported programs.

Risks also exist for UC San Diego, especially if high quality is not achieved and large numbers of learners have negative experiences. The 2018-19 Graduate Council recommended that UC San Diego differentiate its online offerings from on-campus programs both in advertising (e.g., adopting “online” in degree names), and in describing programs as “online” on University transcripts. The *ad hoc* group endorses this recommendation.

VIII. Program Assessment: The *ad hoc* group recommends that new online degree programs should undergo an annual review during the first five years following establishment. These reviews should include: (1) completion rates for individual classes; (2) completion rates for the degree program; (3) average time to degree; (4) demographic information; (5) each statistic in 1-4 broken down by demographic category; (6) course, TA, and professor evaluations, including student comments; (7) an evaluation from Digital Learning in the TLC; and (8) financial data (if an SSGPDP). New measures for evaluating online instructors, TAs, and classes should be developed by UC San Diego (e.g., in collaboration with the TLC), since existing course and instructor evaluations either fail to measure format-specific learner experiences (e.g., about the quality of technologies or availability of faculty and TAs for live interaction), or ask questions that are not relevant to the online format (e.g., whether class begins and ends on time).

Unsuccessful graduate programs, whether online or on-campus, will ideally not be continued. Departments typically end graduate programs voluntarily when they are unsuccessful - e.g., if enrollment is low, faculty participation is low, or if academic foci change and programs become less relevant. However, departments may be less inclined to terminate a program that is unsuccessful by these standards if it continues to generate revenues. For this reason new proposals should describe criteria, as concrete as possible, under which a department would discontinue a graduate program - e.g., enrollment criteria, time to degree, class completion rate, degree completion rate, diversity, faculty involvement, etc.

Appendix 1. Institutional Support for Online Master's Degree Programs

To support the development of quality online Master's degree programs, the *ad hoc* group recommends that the University administration consider the following:

From Section II. Faculty Incentives and Compensation

Regarding the "Guidelines for Revenue Sharing Payments Related to Executed Online Course Development Agreements":¹⁴

1. The University should create guidelines that harmonize incentives and compensation across campus in a format-neutral way (that emphasizes effort rather than format of instruction).
2. The University should structure these guidelines such that they favor incentives that promote quality and reduce the burden of new course design over those that take the form of personal revenues.

From Section III. Quality Course Design

1. The University should articulate how services otherwise provided by edX or 2U will be provided at UC San Diego (e.g., marketing and recruitment, admissions support, student support, career counseling and placement, etc.).
2. As needed, the University should augment investment in services provided by the Teaching + Learning Commons to support the creation, maintenance, and assessment of online courses as well as provide program support (student advising, admissions, community development, support for students with disabilities, technical support, etc.).
3. The University should create an advisory group with knowledge related to online learning and its history at UC San Diego to advise in the creation of new resources to support online programs.

¹⁴ https://digitallearning.ucsd.edu/_files/Online-Course-Development-Guidelines---August-2019.pdf

Appendix 2. Guidelines for Proposals to Establish Online Master's Degree Programs

In its report, the *ad hoc* group made recommendations concerning areas that proposers should address when proposing a new online Master's degree program. This appendix summarizes these recommendations to serve as a resource for proposers preparing new degree program proposals and Senate reviewers tasked with reviewing these proposals.

All proposals to establish new graduate degree programs at UC San Diego undergo review by the San Diego Division of the Academic Senate and the UC systemwide Academic Senate prior to a final decision from the UC Office of the President. The local Graduate Council leads the review process during Divisional review and the Coordinating Committee on Graduate Affairs (CCGA) spearheads review for the systemwide Academic Senate. Both the Graduate Council and CCGA require that proposals for new graduate degree programs follow the format specified in Appendix B of the CCGA Handbook.¹⁵ Proposals requesting the establishment of new online Master's degree programs must also follow this format. Therefore, within the guidelines stated in Appendix B, the *ad hoc* group recommends that proposers include sufficient information to address the following areas associated with offering a program in an online format:

I. Rationale

1. Within the stated aims and objectives of the program, clearly state: (1) the educational rationale for offering the proposed program in an online format; (2) the learning outcomes for the online degree program; (3) the target audience for the online degree program, including how the online format will benefit the target audience; (4) the core design characteristics of the program (e.g., the relationship between program size and program cost).
2. If the proposed online program augments or replaces an existing brick and mortar program, explain how the change to an online format will benefit the educational mission of UC San Diego.
3. If the potential of financial benefits is a central motivator for establishing an online graduate degree program, explicitly discuss this and explain how future revenues might benefit the educational mission of UC San Diego.

II. Faculty Incentives and Compensation

1. Provide specific details about faculty incentive packages for program and course development.
2. Provide specific details about how faculty will be compensated for program oversight and course instruction. Proposers should provide their plans for who will be teaching the courses for the program (including whether courses will be assigned as part of the instructors' assigned regular teaching load or overload).
3. Describe how faculty incentives will favor quality course design.
4. Explain how faculty compensation reflects and supports the needs of the academic unit and does not diminish the academic unit's responsibilities to its full complement of state-supported and on-campus programs.

¹⁵ https://senate.universityofcalifornia.edu/_files/committees/ccga/ccga-handbook.pdf

III. Quality Course Design

1. Identify the program's requirements for campus-level resources to support instructional and learning needs and provide evidence that the identified support will be provided.
2. Explain what learning management systems and digital technologies will be utilized and how students and instructors will engage with them.
3. Provide a rationale for the instructional design of the proposed program. All proposals should describe the level of engagement and consultation between the program (including individual faculty) and Digital Learning in the TLC.
4. Explain how scalable forms of feedback and guidance (e.g., TAs, peer review, automation, adaptive learning, etc.) will provide quality learning and assessment experiences for the target student population.
5. Identify all student support services required for the online degree program, and explain how these will be provided and resourced.

IV. Faculty and Teaching Assistant Involvement

1. Provide the names and roles of the faculty involved with each of the following: program design, course development, and course instruction. Describe their qualifications for developing and/or teaching in an online degree program.
2. Describe what approaches will be taken to support faculty-student interaction, student-teaching assistant (TA) interaction, student-student interaction, and instructor-TA interactions.
3. Describe the proposing academic unit's expectations of faculty and other teaching staff time commitments evaluated in the context of the academic unit's needs and resources (especially in consideration of existing on-campus programs).
4. Describe the proposing academic unit's processes for recruiting, training and supporting TAs hired to support online courses.

V. Diversity

1. State the program's diversity goals in light of the program rationale (see 1. Rationale).
2. Describe specific features of the program's design, activities, and staffing structure aimed at both recruiting diverse learners and monitoring their success.
3. Describe how under-represented students will be supported, and whether fellowships aimed at promoting diversity will be deployed.

VI. Graduate Admissions

1. State how graduate admissions will be conducted and staffed in light of possible new student bodies or quantities of applications.
2. Explain what metrics the program will employ to evaluate student applications and strategies for reducing bias in application evaluation.

VII. Risks to Learners and UC San Diego

1. Describe how intellectual and financial risks to online learners will be mitigated.
2. Describe resources for supporting the non-academic needs of online learners, including support for withdrawing from classes, academic exceptions, and supporting online learners with disabilities.
3. Explain how the academic unit will differentiate the online program from on-campus programs, e.g. adopting "online" in the degree name and describing programs as "online" on University transcripts.

VIII. Program Assessment

1. Outline the evaluation plan for the program based on the *ad hoc* group's recommendation: new online degree programs should undergo an annual review during the first five years following establishment. These reviews should include: (1) completion rates for individual classes; (2) completion rates for the degree program; (3) average time to degree; (4) demographic information; (5) each statistic in 1-4 broken down by demographic category; (6) course, TA, and professor evaluations, including student comments; (7) an evaluation from Digital Learning in the TLC; and (8) financial data (if an SSGPDP).
2. Explain how online classes, instructors and TAs will be evaluated for both content and format.
3. Describe criteria, as concrete as possible, under which an academic unit would discontinue the online program – e.g. enrollment criteria, time to degree, class completion rate, degree completion rate, diversity, faculty involvement, etc.

Appendix 3. Charge Letter to the Online Degrees *Ad Hoc* Group

SENATE ONLINE DEGREES AD HOC
CHARGE
July 15, 2019

BACKGROUND

Graduate Council, the Senate committee charged with locally reviewing and approving proposed graduate degree proposals, requested broader Senate consultation on fully online degrees. At its June 6, 2019 meeting, Senate Council agreed to form an ad hoc to develop a framework and set of guidelines for fully online degrees.

The ad hoc may call upon Administrators with specialized expertise to advise the ad hoc as consultants. The ad hoc will meet over the summer and their report will be due in September, so that review of it can begin at the start of the fall quarter.

CHARGE

The charge of the ad hoc is to develop a framework and set of guidelines that can be used as the basis for agreement between the Senate and the Administration on the long-term strategy for implementing fully online degrees at UCSD. The strategy, which can be revisited and revised in the future as online learning evolves, will provide a much-needed philosophical framework for faculty reviewing program proposals.

The guidelines should address the following specific questions:

- A) What is the pedagogical rationale for fully online degrees?
- B) What types of fully online degrees should UCSD offer?
 - 1) Should undergraduate degrees be offered? If so, should there be any parameters/limitations? Should duplication or conversion of current on-site brick and mortar programs be permitted, and if so, under what conditions?
 - 2) Should graduate professional degrees be offered? If so, should there be any parameters/limitations? Should duplication or conversion of current on-site brick and mortar programs be permitted, and if so, under what conditions?
 - 3) Should graduate academic/research degrees be offered? If so, should there be any parameters/limitations? Should duplication or conversion of current on-site brick and mortar programs be permitted, and if so, under what conditions?
- C) Standards and/or requirements for fully online degrees
 - 1) What are the standards for quality assurance of the academic excellence of the *content* of the courses and overall degree?
 - 2) What are recommended standards for *instruction* in online degree programs, e.g., who develops an online course? Who teaches it? Who updates it and how often? What are the respective responsibilities of teachers and TAs to students? How will TAs be trained and supervised?
 - 3) What are recommended diversity goals for online programs?
 - 4) What safeguards are recommended to promote academic integrity and prevent students from violating the UCSD Policy on Integrity of Scholarship?
 - 5) What safeguards, such as an alternative refund schedule, are recommended to mitigate potential financial risks for an online student population?

- 6) Are there financial impacts or risks to the University that should be considered if online degree programs are offered?
 - 7) How should the University leverage third-party platform providers such as edX?
 - 8) Should the degree name indicate when a program is completed online?
 - 9) The Strategic Academic Program Development (SAPD) Initiative (<https://evc.ucsd.edu/initiatives/sapd/index.html>) has generated models for teaching load, compensation, and intellectual property for online programs (see attachments). Please comment on whether these standards are appropriate.
- D) How should fully online degrees be evaluated after establishment?
- 1) What data should be gathered to evaluate fully online programs, in place of or in addition to what is normally collected for on-site brick and mortar degrees?
 - 2) What should the review cycle be?
 - 3) What are the recommended measures of success of the program?
 - 4) What are the circumstances for disestablishment? How long should a program be given to prove its worth?
- E) What resources are needed to ensure the quality and academic integrity of online degrees?

COMPOSITION

- Chair: David Barner (Psychology)
- Members:
 - Daniel Arovas (Physics)
 - Robert Bitmead (Mechanical and Aerospace Engineering)
 - Mark Dresser (Music)
 - Micah Muscolino (History)
 - Maho Niwa Rosen (Biological Sciences)
 - Beth Simon (Education Studies)
- Staff support: Lori Hullings

TIMELINE

- Ad hoc meets July-August 2019
- Report to be submitted by September 16, 2019.

Attachments: Enclosure 01 - May 15, 2019 Graduate Council Memo
 Enclosure 02 - June 6, 2019 Senate Chair Horwitz's notes on online degrees
 Enclosures 03a-g - Materials sent by EVC to Senate Council
 Enclosures 04a-c - SAPD Initiative Materials
 Enclosure 05 - List of possible consultants

Appendix 4. List of Consultants

UC San Diego

1. Karen Flammer, Director of Digital Learning, Teaching + Learning Commons
2. Robert Continetti, Senior Associate Vice Chancellor, Academic Affairs
3. Steve Ross, Associate Vice Chancellor of Resource Administration, Academic Affairs

External

1. Ani Adhikari, Teaching Professor of Statistics, UC Berkeley
2. John DeNero, Associate Teaching Professor of Electrical Engineering and Computer Sciences, UC Berkeley
3. David Wagner, Professor of Computer Science, UC Berkeley
4. David Joyner, Associate Director of Student Experience (OMSCS) and Senior Research Associate, Georgia Tech
5. Chris Hoofnagle, Adjunct Professor, Schools of Information and Law, UC Berkeley
6. Tara Gee, Academic Advisor - Post Baccalaureate Program, Computer Science, University of Colorado, Boulder
7. Alex Hughes, Adjunct Professor, School of Information, UC Berkeley
8. Peter K. Bol, Carswell Professor of East Asian Languages Civilization and Vice Provost for Advances in Learning, Harvard University

Appendix 5. Distance Education Courses at UC San Diego and Online Master's Degree Programs within UC

Distance Education Courses at UC San Diego

Distance education courses at UC San Diego must bear the letter R (for Remote) at the end of the course number. Currently, distance education courses must adhere to the requirements specified in the Academic Senate's Policy on Remote and Distance Instruction,¹⁶ implemented in 2011. The policy is specific to the standards and review requirements for individual proposals to establish distance education courses. This past year, in 2018-19, the Academic Senate's Educational Policy updated the policy, renaming it the UC San Diego Policy on Distance Education Courses, to better align campus policy with today's distance education landscape. EPC will present the updated policy in Fall 2019 to the Academic Senate's Representative Assembly for an effective date during 2019-20.

The *ad hoc* group referenced the updated policy during its discussions since all individual courses within an online Master's degree program would be required to meet the standards and requirements for distance education courses set forth in the policy and provide the necessary supplementary information needed for approval by the Undergraduate or Graduate Council.

Table 1 provides a list of currently approved "R" courses at UC San Diego. The majority of these courses were established as part of the ongoing UC Innovative Learning Technology Initiative (ILTI).¹⁷

¹⁶ <http://senate.ucsd.edu/media/71324/Remote-and-Distance-Instruction.pdf>

¹⁷ <https://www.ucop.edu/innovative-learning-technology-initiative/>

Table 1. Approved “R” Courses at UC San Diego

Course	Academic Unit	Approved Effective Date
CAT 125R. Public Rhetoric & Practical Communication Online	Sixth College	Winter 2015
CENG 15R/NANO 15R. Engineering Computation Using MATLAB Online	Chemical Engineering Program/Department of Nanoengineering	Winter 2019
CSE 180R. Biology Meets Computing	Department of Computer Science and Engineering	Winter 2020
DSE 200R. Python for Data Analysis	Department of Computer Science and Engineering	Spring 2019
EDS 110R. Early Learning Environments for Diverse Learners	Department of Education Studies	Spring 2019
EDS 124AR. Teaching Computation in the Digital World	Department of Education Studies	Winter 2018
EDS 124BR. Teaching Computational Thinking for Everyone	Department of Education Studies	Fall 2018
GLBH 170R. Global Burden of Disease	Global Health Program	Winter 2019
GLBH 171R. Global Mental Health	Global Health Program	Winter 2019
HILD 20R. World History I: Ancient to Medieval	Department of History	Fall 2019
MGT 128R. Business Innovation & Growth	Rady School of Management	Fall 2015
POLI 117R/SIO 109R. Bending the Curve Online: Climate Change Solutions	Department of Political Science/Scripps Institution of Oceanography	Fall 2019
SIO 16R. Geology of the National Parks	Scripps Institution of Oceanography	Spring 2015

Source: UC San Diego Registrar’s Office

Online Master's Degree Programs within UC

Table 2. Approved Online Degree Programs within UC*

Degree Name	Campus	SSGPDP?	Year Approved
Master of Information and Data Science (MIDS)	Berkeley	Yes	2013
Master of Information and Cybersecurity	Berkeley	Yes	2017
MAS in Integrated Circuits	Berkeley	Yes	2012
Master of Public Health	Berkeley	Yes	2011
Master of Business Administration	Davis	Yes	2019
MAS in Criminology, Law & Society	Irvine	Yes	2003
Master of Human-Computer Interaction and Design	Irvine	Yes	2016
Master of Legal & Forensic Psychology	Irvine	Yes	2015
MS in Engineering (with degree titles in 10 subspecialties)	Los Angeles	Yes	2006
MS in Engineering	Riverside	Yes	2012
MS in Healthcare Administration & Interprofessional Leadership	San Francisco	Yes	2013
MS in Health Policy & Law	San Francisco (with UC Hastings College of Law)	Yes	2014

*Currently there are no centralized records listing online courses or degree programs in the UC, and for this reason this list may be incomplete; information about year of establishment and SSGPDP status provided by Institutional Research and Academic Planning, UC Office of the President