

Approved as amended by Faculty Senate, April 4, 2012

March 28, 2012

MEMORANDUM

TO: The Faculty Senate

FROM: Matt Taylor, Associate Vice-Provost for Academic Affairs and Associate Dean of Undergraduates

RE: Recommendations for awarding distinction in undergraduate research

The attached set of recommendations is respectfully submitted in response to the February 2011 charge from the Provost and Dean of Undergraduates to study and provide a report on how Rice might recognize undergraduate students who achieve distinction in research.¹

The working group assembled for this task included representatives from each of the Schools—David Alexander (Natural Sciences), Karim Al-Zand (Music), Margaret Beier (Social Sciences), Christopher Hight (Architecture), Luay Nakhleh (Engineering), Robin Sickles (Social Sciences), and Nicole Waligora-Davis (Humanities)—as well as key staff members—Kellie Butler (Center for Civic Engagement), Caroline Quenemoen (Office of Fellowships and Undergraduate Research), and David Tenney (Registrar). The Working Group (WG) met four times during the spring semester; the WG chair (Matt Taylor) also met with individual members of the WG on several occasions and appeared twice before the Committee on the Undergraduate Curriculum (CUC) to seek input on and provide recommendations from the group’s work.

The WG benefitted from a study of programs of graduation honors at peer schools conducted by Drs. Butler and Quenemoen, and by Professor Sickles’ correspondence with colleagues at other institutions.

The WG submitted a set of recommendations to the Committee on the Undergraduate Curriculum, and those recommendations were forwarded to the Executive Committee of the Faculty Senate (EC) in January 2012. The recommendations that follow were revised in March 2012 in response to questions and feedback from the EC.

¹ The University Web page defines research as follows: “ Research is defined very broadly as any opportunity to approach a problem in a critical and open-ended way, ranging from the scientific experiments in our science and engineering laboratories, to the design projects in our engineering classes and architecture studios, to the fieldwork and original analyses of our social scientists and humanists” (http://www.futureowls.rice.edu/futureowls/Undergraduate_Research1.asp?SnID=319025075). The WG encourages inclusion of “other creative works” in this definition to accommodate work in the visual, musical, and dramatic arts.

The WG's recommendations can be summarized as follows:

1. The award "Distinction in Research and Creative Works" will be a University award, granted at Commencement, and appear on the transcript and diploma.
2. Certain University-wide considerations for this honor apply:
 - a. Applicants must be in good academic standing and have a cumulative GPA of at least 3.30 in courses completed at Rice. The WG believes that excellence in coursework should always be encouraged. However, the University already has several categories of GPA-based awards (Latin Honors, Phi Beta Kappa, etc.). Moreover, departments vary in the use of the 4.33 or 4.0 grading scale. Therefore, using a high GPA as a requirement for eligibility could have an inequitable effect on students in certain majors.
 - b. The award should be granted only to projects that "produce something" and demonstrate commitment and/or achievement "above and beyond the norm." Students who complete senior theses, senior design projects or other **required** senior capstone projects will not qualify **automatically** for consideration for this University distinction. Nonetheless, students from departments or Schools that require completion of a senior thesis (Physics, for example), senior design project (Engineering), or other capstone project (Architecture, Music) for the degree will be allowed to submit work the quality of which they believe goes "**above and beyond**" their major requirement.
 - c. Students must apply to be considered for the award and the application must be supported by a letter from a faculty member (or Center director).
 - d. Eligibility for the award will extend widely to include a variety of research, design, and other creative projects, as well persistent dedication to research, etc. For example, individual students might base an application for graduation honors on their "body of work" (demonstrated commitment to/participation in research over several semesters), senior thesis (where this goes above and beyond what is required for a particular program of study), creative project (Music, Architecture), contribution to a significant team-based design project, or other discrete research/design project in a major or minor field of study, or such as one done at another university or done in partnership with a community organization.
3. Projects completed in part or entirely at other institutions or with community partners will be eligible for consideration.
4. Responsibility for judging applications and determining those that merit the distinction award rests with undergraduate degree programs/departments, which will establish processes for submission and evaluation of such applications.
5. The departments must publish annually clear expectations and criteria for the research and design projects that will be considered for the award, as well as guidelines for "above and beyond the norm" within their respective fields.

- Departments may designate additional requirements, such as completion of a research seminar or oral defense.
6. Departments will record and report, and the University will publish annually, the number of distinction awards.
 7. This program is likely to increase the burden on the IRBs. The Office of Sponsored Research should be involved as plans for implementing the program move forward.
 8. The new distinction award program will be reviewed biennially by the Deans' Council.

Report of the Working Group on Awarding Distinction in Research

“As a leading research university with a distinctive commitment to undergraduate education, Rice University aspires to path-breaking research, unsurpassed teaching, and contribution to the betterment of our world. It seeks to fulfill this mission by cultivating a diverse community of learning and discovery that produces leaders across the spectrum of human endeavor.” (Rice University Mission Statement)

The connection between research and Rice’s commitment to undergraduate education has long been a part of the university’s identity. Indeed, in his 1912 inaugural address, President Edgar Odell Lovett envisioned a university dedicated to producing not merely well-educated men and women but “knowledge makers” who would apply their education for the “betterment of mankind.”

Rice’s small size and recruitment of scholars who combine excellence in research with devotion to teaching and mentoring undergraduates, have encouraged the inclusion of undergraduates in faculty research, particularly in the Natural Sciences. Additionally, the Schools of Architecture, Engineering, and Music have made completion of significant design projects or creative works a required element of their degree programs.

Despite this, there is no university-wide program that recognizes students who pursue and achieve distinction in research or design.² Many academic departments have such awards for graduating seniors, but these touch fewer than 75 students each year. And, yet, according to recent COFHE survey data, 21 percent of Rice undergraduates publish or present the results of their research/design at off-campus venues.³ Clearly, the University fails to recognize the majority of undergraduates who pursue and even excel in research.

The proposed program of graduation awards will help remedy this situation. Its principal goals are to reward and recognize distinctive student achievement in original research, design, or other substantive creative endeavors.

² Construction of the Oshman Design Kitchen was a significant reiteration of Engineering’s commitment to providing each of its students with a meaningful design experience. The Century Scholars program could be considered an exception, though one might argue that it is as much an Admission tool as a research program. The Rice Undergraduate Scholars Program (RUSP) is “designed for juniors and seniors from any department who are considering graduate school and academic careers. Undergraduates accepted into the program ‘act’ as graduate students for an academic year, with a faculty member selected by the student who serves as a mentor and meets regularly with the student. . . . Individual support ranges from \$250-\$1,700 per year for research work” (http://www.futureowls.rice.edu/futureowls/Rice_Undergraduate_Scholars_Program.asp?SnID=344446362).

³ COFHE survey, 2009.

University, School, Departmental, and Student Roles:

University:

- * The honor --“with Distinction in Research and Creative Works”— will be a University award to be granted upon graduation to undergraduates and designated on their official transcript and diploma.
- * Basic criteria for the award will be set by the University and applied uniformly across the Schools. Criteria will include minimum GPA, effort “above and beyond the norm”, and duration of research or duration of academic work that culminates in a musical performance or other creative work, and the general categories of research, design, and other creative work that are eligible for consideration.

Schools:

- * The new distinction award program will be reviewed biennially by the Deans’ Council

Departments:

- * Each of the departments will be responsible for appointing a committee of faculty who will evaluate the applications of their respective majors (and the applications of non-majors whose research falls within the expertise of their respective departments).
- *The departments must publish annually clear expectations and criteria for the kinds of projects that will be considered for the award, as well as guidelines for “above and beyond the norm” within their respective fields. Departments may designate additional requirements, such as completion of a research seminar or oral defense.
- *Departments will record and report, and the University will publish annually, the number of distinction awards.

Students:

- * Students who wish to be considered for the award **must submit an application** to the selection committee of the department that corresponds most closely with the discipline of their research or creative project.
- *Applications must be completed **no later than the 10th (?) week** of the spring semester in which the applicant intends to graduate. Applications **must include a letter of support** from at least one of the following: a faculty member of the appropriate Rice University academic department; the main faculty advisor(s) who oversaw the project(s) at Rice or elsewhere; or, the faculty or staff director of the Rice University Center that sponsored the project (e.g., the Center for Civic Engagement, Baker Institute, Kinder Institute).

University Criteria for Eligibility:

* **What qualifies as an adequate research, design, or other creative project?** The Working Group (WG) recommends that many varieties of work should be accepted for consideration.⁴ For example, individual students might base an application for graduation honors on their “body of work” (demonstrated commitment to/participation in research over several semesters), senior thesis (where this goes above and beyond what is required for a particular program of study), creative project (Music, Architecture), contribution to a significant team-based design project, or other discreet research/design project in a major or minor field of study, or such as one done at another university or done in partnership with a community organization.

Individual academic departments will be charged with enunciation of more explicit, discipline-specific criteria, though the Working Group recommends that the research distinction be awarded only to projects that “produce something” and demonstrate commitment and/or achievement “above and beyond” the norm. The WG also recommends that this distinction be open to all seniors, including those who receive departmental awards (such as best thesis).

Finally, the WG strongly recommends that all senior theses, senior design projects or other **required** senior capstone projects shall not qualify **automatically** for consideration for this University distinction. Nonetheless, students from departments that require completion of a senior thesis (Physics, for example) senior design project (Engineering) or other capstone project (Architecture, Music) for the degree will be allowed to submit work that they believe goes "**above and beyond**" their major requirement.

***Minimum GPA:** Applicants must be in good academic standing and have a cumulative GPA of at least 3.30 in courses completed at Rice. The WG believes that excellence in coursework should always be encouraged. However, the University already has several categories of GPA-based awards (Latin Honors, Phi Beta Kappa, etc.). Moreover, departments vary in the use of the 4.33 or 4.0 scale. Therefore, using a high GPA as a requirement for eligibility could have an inequitable effect on students in certain majors.

University Resources and Incentives for Faculty Participation

The WG’s discussion of these issues is addressed in Appendix A.

⁴ The University Web page defines research as follows: “ Research is defined very broadly as any opportunity to approach a problem in a critical and open-ended way, ranging from the scientific experiments in our science and engineering laboratories, to the design projects in our engineering classes and architecture studios, to the fieldwork and original analyses of our social scientists and humanists” (http://www.futureowls.rice.edu/futureowls/Undergraduate_Research1.asp?SnID=319025075). The WG encourages inclusion of “other creative works” in this definition, to accommodate the work of Shepherd School students.

Appendix A
Working Group on Awarding Distinction for Research

Incentives for Faculty Participation:

The Working Group devoted considerable discussion to this topic. Discussion proceeded from the assumption that any proposed program of recognition for research distinction derived at least in part from a desire to increase the number of undergraduates who have a significant research, design or creative capstone experience. If successful this program could result in faculty soon being asked to supervise an increasing number of students.

This scenario generated concern among some members of the WG and the Committee for Undergraduate Curriculum (CUC). Humanities faculty, for instance, said that supervising two senior theses could be equivalent to teaching a new course. Members of both groups suggested a commitment of significant University resources would be required to entice faculty to take on the work associated with guiding undergraduate research projects and to allow departments to hire the additional faculty necessary to ensure key courses are taught, if core faculty seek teaching releases to compensate for supervision of research projects.

Other faculty members were less concerned. Two said that working with talented undergraduates was incentive enough to get faculty to supervise research and design projects. Another suggested that recognition for taking on undergraduate researchers—from the provost or department—would suffice.

The WG's recommendation (though not unanimous) is that the issue of incentives be tabled. The WG views the goal of increased undergraduate participation in research, design and other creative projects as an important but separate goal from that of recognizing what already occurs at Rice: the conduct of research, design, and creative projects worthy of University distinction.

In making this recommendation, the WG realizes that implementation of a program of awards for distinction in research may spur more students to seek faculty oversight or sponsorship. If this in fact occurs and creates new burdens, the faculty will ask for resources.

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Amendment:

The Faculty Senate will review the program in 2015.