# Review of the Weber State University Office of Undergraduate Research (OUR) May 7, 2018

## Program Review Site Visit Team

Oraig Bergeson, Foreign Language Department, Weber State University Linda Blockus, Director, Office of Undergraduate Research, University of Missouri Sally Cantwell, School of Nursing, Weber State University Mitch Malachowski, Chemistry Department, University of San Diego

The program review site visit team was invited to perform a Program Review of the Office of Undergraduate Research on May 7, 2018. Our review consisted of written materials supplied by the OUR, conversations with the office staff and a full day series of meetings with faculty, students and campus administrators. This report reflects our impressions and recommendations from those interactions. We will use the form recommended to us a SWOT analysis to do our review.

It is useful to make a few comments about undergraduate research (UGR) that might help frame this review. Interest in undergraduate research is exploding on campuses of all types as a high-impact practice that benefits students across demographic groups and disciplines—and can provide even greater gains for women, first-generation, and minority students. UGR is a compelling way to meld the interests of faculty to engage in scholarly work with the needs of students for challenging experiences that lead to substantial impacts on their cognitive and affective development. The benefits of UGR have been recognized to impact all key stakeholders in higher education and many campuses are now building and sustaining vibrant undergraduate research programs. Weber State University has been engaged in UGR for many years and the existence of the OUR is one sign of the health of the endeavor on campus.

# Strengths

We will begin by describing what we identified as being the strengths of the Office of Undergraduate Research:

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student engagement on a campus with an open enrollment policy and a largely commuter population. WSU's motivation for investing in undergraduate research is aligned with its values and institutional priorities and we applaud WSU for their commitment.

2. OUR staff/physical space. The OUR is fortunate to have a seasoned and committed staff to run their operations and to help the office continue to move forward. The OUR is well connected to other units on campus and this synergy seems to be a great source of strength and energy. The current administrative structure and reporting lines seem to be well conceived and serve the office well. There are never enough resources to do everything that a unit wants to take on and this is certainly true of the OUR. With a half time director and a shared office manager, there is not excess there were

more staff. That being said, in our experience, WSU is in the middle tier of schools in terms of resources devoted to undergraduate research. Many schools are now moving to hiring assistant directors to support the work of the office and this model might be considered for WSU.

Students praised the helpfulness and accessibility of staff and repeatedly commented on the student-centered attitudes of the OUR. The faculty similarly spoke highly of the assistance they receive and the professionalism of the office. This culture goes a long way in creating the synergies and relationships that are crucial to the success of an office such as the OUR.

We will make a very brief comment on space and facilities. Certainly, there is not enough space as everyone is pretty crammed together. We are in no position to understand what WSU grade facilities look like all over campus so we cannot really make a recommendation in this area. One consideration that goes beyond square footage is accessibility to the space by those who you want to engage and we know that this has been a topic of conversation for many years.

- 3. Faculty. Undergraduate research programs cannot thrive without a deep and sustained commitment from the faculty. In our conversations with the many faculty members we spoke with, it was clear that this engagement is already in place and this speaks loudly for the future success of UGR at Weber State. The faculty should be lauded for the work that they have put in over the years, much of it with very modest levels of compensation. A continued emphasis on hiring faculty who understand and will participate in UGR will be important in sustaining these efforts as it diminishes the need for in-service training of faculty and the need to convince them of the importance of these endeavors.
- 4. Recent initiative: Research Scholars Program. This is a well-conceived program that exposes students to scholarly processes early in their career. Identifying and supporting students as research scholars early in their matriculation is an important way to help change the culture and make students and faculty more receptive to undergraduate research activities. Certainly, there is a cost to this initiative, but it

seems to be money well spent. It is our sense that although this is a very important

therefore, this also helps with accessibility. Student travel to conferences is a priority and it appears that money is moved around so that the maximum number of students can have the experience each year.

- 5. Lack of training of mentors. We received commentary from some faculty that more emphasis should be placed on training faculty to be better mentors. This includes mentoring individual students along with mentoring groups of students. We did not follow-up on this issue so it could be that considerable attention is already being placed on it but in any case, the training just might not be getting through to some of those who believe they desire it.
- 6. Some faculty equate the OUR to money only. It is not a surprise that some faculty see the OUR as a place to get money and grants to help them do their jobs. This is not uncommon and in reality, the OUR should be helping out the faculty and students with direct support and they do it quite well. It also is true that the OUR offers more than just financial support but for many of the faculty, this has not gotten through to them. Ways to change faculty perceptions should be explored and it might even be desirable, if it has not been done recently, to poll the faculty to see what offerings interest them the most. Additional (non-monetary) resources and workshops for students would also help to change this image.
- **7.** Total number of students doing research.

- reviewed journal, a documentation/ annual report of undergraduate research, or a hybrid.
- f. A cost/ benefit analysis could be conducted that includes the scholarships for student staff (and student learning benefit), staff/ faculty time, printing and dissemination costs, impact of distribution, and use as a record keeping device. If it is not already archived on a website, some thought might be given to archiving the table of contents.
- 2. Dissemination. The OUR is engaged in many different activities and does a very

think that there is always more that can be done in this realm as in our conversations with faculty, there was a mismatch between what the OUR shares with them and what the faculty are hearing. This is a common predicament and it certainly speaks more directly to how faculty frequently function, but the reality is that other approaches by the OUR might be fruitful.

- 3. Development opportunities. With the help of the development office, continued emphasis on raising funds for additional faculty and student support could be pursued.
  - they can speak passionately about their work with students.

4.

enhanced atmosphere for the students and additional energy that could help grow this very important event. We have seen many campuses struggle with this issue as

trivial issue to resolve.

- 7. Scholars program needs to be refined. We fully expect that this will happen over the years and are confident you are on the right path with this. At some point, stepping back and celebrating the successes could be important for all.
- 8. Continued alignment with WSU mission could support funds. We are impressed with how naturally UGR fits with the institutional mission so all we are saying is keep moving down this path.
- 9. Develop credit opportunities for students regardless of department. Although our task is to review the activities of the OUR, we also have impressions related to the UGR efforts throughout the campus. The OUR, through the appropriate academic offices, should consider reviewing how students receive research credit for the involvement in UGR. We picked up that many departments for students to register and get credit for UGR or at a minimum, there is a lack of consistency as to how this issue is handled. This is an academic issue that is not necessarily within the purview of the OUR, but continuing to prime this conversation could have great value.

#### Threats

1. Budget stability. Our concern is the inertia that could be built up over time so we recommend a more aggressive call for additional funding.

acknowledge the current and potential overlaps of graduate and undergraduate research and match them with research infrastructure support. Additionally, consider aligning resources with the proper unit(s) after the responsibilities for research infrastructure are more fully articulated and assigned.

- 4. Too many new things (don't lose sight of outcomes). There are many components to UGR and in the OUR. We have seen UGR on other campuses become quite disjointed as so many programs are layered on top of each other. Yearly prioritization of items by the OUR will go a long way in maintaining a cohesive program.
- 5. As so many initiatives and planned and implemented, there is concern with

and present a variety of workshops for students to aid in their professional development as undergraduate researchers and scholars. Topics such as getting started in research, working with your mentor, designing a poster, writing an abstract, presenting your research, etc. are standard offerings by most undergraduate research offices. Additional topics can be offered depending on student needs and strategic directions of the OUR (

information will help articulate funding needs and fundraising targets. Additionally, OUR may find out that some units/ student populations are successfully getting funds for direct student support (stipends, salary), while other units have been reluctant to ask for student support. There may be inequities across student demographics or disciplines. This data may help inform OUR about any gaps in participation due to student financial need.

Currently there is no systematic tracking of student outcomes after a student receives a grant. OUR should be tasked with collecting basic information 1-3 years after funding, which would include the graduation status (including final major/gpa) of student grantees, any awards/ honors resulting from conducting the research (including conference presentations and publications), other honors and awards, and post-graduation plans. Additionally, a final "summary" of the student's project/ results should be required. This type of information will help OUR advocate for continued/ increased funding and provide data and personal stories that illustrate the benefits of undergraduate research. This tracking can also help to build an alumni network that will benefit current students and WSU as an institution.

- 7. Documenting outcomes from grant dollars. There may be value in digging deeper into the outcomes from the grant monies allocated by the OUR to faculty and students. Much of this already exists as the monies are frequently used for travel expenses to conferences but there are opportunities to further understand some of the other outcomes.
- 8. Curriculum initiatives. We strongly recommend that you stay the course on moving towards a research-rich curriculum in as many departments/ units as possible. This is the main thrust of many of the advances in UGR and this approach is particularly well suited for institutions that do not focus on summer-based research programs.

## Appendix 1 - Review Team

Craig Bergeson, Foreign Language Department, Weber State University

Linda Blockus, Director, Office of Undergraduate Research, University of Missouri

Dr. Linda Blockus is the founding director of the Office of Undergraduate Research at the University of Missouri. Her leadership in the Council on Undergraduate Research includes more than fifteen years as an elected councilor, a term as chair of the Undergraduate Research Program division and service on the Executive Board, election to the Nominations Vetting Committee, and leadership on the Student Programming Task Force. With Joyce Kinkead (Utah State University) she co-edited the book "Undergraduate Research Offices and Programs: Models and Practices" (2012). Dr. Blockus also co-authored CUR's "Characteristics of Excellence in Undergraduate Research (COEUR)", which serves as an aspirational blueprint for programs and campuses. In addition to articles published in the "CUR Quarterly" journal (now "SPUR")612 79w 6cserved as gueseao / P.63 792 s9HCtourme@initiative 120ed issue on student participation. At MU, w 6chas provided leadership on undergraduate research grants f(")2 s9Hm NSF612 79NI(")Sh@adabsHebita.a new campus initiative to celebrate / F1 12 visual art and designholarship of undergraduates. Dr. Blockus earned heCtourPhD in higher education at / F1 12 Univ6rsity of Missou(")i.

Sally Cantwell, S() chool of Nursing, Weber State University

Mitch Malachowski, Chemiseary Department, University of San Die spigo

Mitch maintains an active research program involving the bioin (") ganic c12 oistry of copper and iron containing proteins and in supramolecular ch2 oistry and has

University Professorships from USD and the Charles B. Willard award for distinguished career achievement from Rhode Island College. He was the recipient of the 2014 CUR Fellows Award and was named the 2014 CASE/ Carnegie Foundation California Professor of the year.