

Sustainability Program (SUST) Standards as Aligned with School Standards for Natural Sciences and Mathematics (NAMS)

In order to clearly express the aligned expectations and standards of the Sustainability program within the School of Natural Science and Mathematics, the supplementary or particular SUST program standards are presented below in italics as amendments to the NAMS standards.

The faculty of the School of **NAMS** support the University standards and intend for the elements of this document to further elucidate the areas of teaching, scholarship, and service from the perspective of the natural sciences and mathematics.

1. ELABORATION OF UNIVERSITY STANDARDS FOR TEACHING FACULTY

1. Teaching

1. Educating students, both inside and outside the classroom, studio, or laboratory is the University's primary purpose. Therefore, performance in teaching carries the greatest weight in the evaluation of faculty. All aspects of teaching, including preceptorial teaching as applicable, will be evaluated in order to gain a clear understanding of each faculty member's performance. Same as University standards

The Sustainability Program assigns the highest priority to teaching. We also expect that individuals will emphasize innovation, public engagement and service in their scholarly, creative activity and their teaching endeavors, while also ensuring excellence that meets University and School standards in all areas.

2. The School of Natural Sciences and Mathematics (NAMS) encourages the faculty to demonstrate teaching effectiveness by a variety of methods. There are many ways of achieving excellence in teaching, and each program and individual faculty member may have a unique way of dealing with the challenges of teaching. In addition to traditional classroom teaching, we recognize that NAMS faculty are often involved in independent studies and field and laboratory work, which may present additional time constraints and challenges. To demonstrate teaching effectiveness, we encourage the faculty to rely on several indicators of successful teaching in addition to the IDEA, including but not limited to the ones listed in the following sections: In broad terms excellence in teaching is characterized by:

1. A thorough and current command of the subject matter, teaching techniques, and methodologies of the disciplines one teaches. Syllabi, teaching portfolios and other course materials may be submitted as indicators, as well as peer evaluations of teaching.

2. Sound course design and delivery in all teaching assignments—whether program or General Studies, introductory or advanced offerings—as evident in clear learning goals and expectations, content reflecting the best available scholarship or artistic practices, and teaching techniques aimed at student learning. Syllabi, teaching portfolios and other evidence, such as assessment results and that indicated in Section 6.1.2.2 of this Policy, may be submitted as indicators. Faculty may submit evaluation of one's course materials and content by members of their program or of General Studies who do not participate in the formal “Peer Evaluation of Teaching” as described in Section 7.3.3 of the Procedures.

- 6.1.2.3. The ability to organize course material and to communicate this information effectively. The development of a comprehensive syllabus for each course taught, including expectations, grading, and attendance policies and the timely provision of copies to students. Syllabi and peer evaluations along with student evaluations and assessment (such as IDEA, informal assessment, and formal assessment administered by outside observers) may be submitted as indicators.

- 6.1.2.4 Excellence in teaching also entails respect for students as members of the Stockton academic community, the effective response to student questions, and the timely evaluation of and feedback to students. Same as University standards

3. Where appropriate, additional measures of teaching excellence are:

1. Ability to use technology in teaching. *This expectation is particularly important to the sustainability program, as the application of changing technology is often a vital element on the efforts to achieve a more sustainable society.*

2. The capacity to relate the subject matter to other fields of knowledge. *Making connections between field of*

understanding speaks to the core of sustainability, and is central to teaching in the discipline.

3. Seeking opportunities outside the classroom to enhance student learning of the subject matter.

4. The ability to lead, promote, and/or participate in successful credit-bearing experiences in community engagement, service-learning, international education, and global engagement.

5. Ability to create an inclusive and respectful environment.

6. Evidence of effectiveness for alternate assignments and/or non-teaching responsibilities should be demonstrated.

4. *The central commitment of the Sustainability Program is to produce competent, innovative, and informed sustainability professionals that are equipped to help address the societal and ecological challenges we face and well prepared to begin their careers. In addition, the program is committed to Stockton's mission as a liberal arts institution, and the need to infuse pressing topics of sustainability, science, technology and social justice into the curriculum. Hence, teaching that empowers students as agents in the shaping of a more socially-just, verdant and sustainable society is valued and expected of all program faculty.*

Similarly, a pedagogical approach that embraces the broad liberal arts mission of the university is highly valued. Thus innovative and engaged pedagogy that allows student to develop intellectual creativity, resiliency, and professional competence is highly valued. Teaching that allows opportunity to hands-on learning, engaged scholarship, research, creativity, as well as moral and intellectual development is critical to the mission of the sustainability program.

In Sustainability, teaching that offers an opportunity for intellectual and moral growth and innovative capacity is particularly vital given the constantly-changing nature of the field. As a result, it is vital for teaching to emphasize emerging technology and research, changing societal challenges and implications, and the often contentious nature of the issues, as well as the direct and important environmental, social and political implications of the knowledge and understanding we foster.

5. *In Sustainability, the evaluation of a faculty member's teaching may include the range, rigor, and quality of courses offered in both the Sustainability Program and the General Studies curriculum, with*

attention to the service they provide to the program's aims described above. Given the dynamic nature of the field, and the ecological and social challenges we collectively face, a capacity to shape and adapt both the curriculum and pedagogical methods so as to continuously adapt to the changing needs of the field and of our students, is needed. This might be reflected in efforts by faculty members to update their courses to reflect changes in the field, vary course offerings to provide students with a range of educational, professional and engagement opportunities, upgrade courses to provide training in new methods, techniques and processes, and the creation of innovative learning opportunities in and out of the classroom.

In this vein, tenure track faculty are encouraged to produce pedagogical resources and instructional materials that might help enhance and expand the value and breadth of the sustainability curriculum. Instructors and Non-Tenure Track teaching Professionals are similarly expected to demonstrate creative and engaged pedagogy. However, they are not expected to develop instructional resources and curricular innovations beyond those specifically required for courses they are teaching.

6. *In Sustainability, we expect professional and personal precepting which is mindful of the broad variety of professional areas that sustainability students may aspire to, the professional expectations in the field, the broad societal and ecological challenges we collectively face, and future trends in all of these variables. This expectation is tempered for Instructors and Non-Tenure Track teaching Professionals who may need to focus their academic and professional mentoring on their specific field of expertise.*

2. Scholarly and Creative Activity-Note: Instructors and Non-Tenure Track teaching Professionals are not required to engage in scholarly or creative activity

1. The teacher-scholar model recognizes that a serious and continuing commitment to engaging in the scholarship or creative activity of one's disciplinary and/or interdisciplinary work, consistent with rank and/or assigned responsibilities, enriches teaching and is the foundation of sustained excellence within the classroom. Additionally, consideration should be given to scholarship in areas different than the candidate's specialty, if it contributes to the candidate's intellectual and scholastic development and reputation, as it is consistent with Stockton's mission as a liberal arts college

2. Publications and creative work in support of reappointment and tenure are those achieved during the tenure candidate's probationary period.

Activity in support of a post-tenure promotion or range adjustment is that work completed since the most recent promotion or range adjustment. Same as University standards

3. The University recognizes a wide variety of scholarly vehicles: disciplinary or interdisciplinary research, pedagogical research, applied research, integrative scholarship, community engagement, service-learning, artistic or creative activity, and grant writing. Scholarly or creative activities may take many forms and use different vehicles to communicate with the broader academic community. Same as University standards

In the Sustainability Program, this need to recognize the value and full breadth of scholarly activity is critical. In particular, as the field is still being defined and shaped by the nature of the challenges humanity faces, scholarship and creative activities that endeavor to help shape the professional fields within the broad context of sustainability, form and identify the emerging field of sustainability studies, and enrich the pedagogical approach to sustainability education are of great value.

3.5 In Sustainability, great value is placed on innovative, original, disciplinary, and interdisciplinary scholarship. And a particular high value is placed on scholarship that is formed by or enhances college teaching and the field of sustainability education. This is expected of all tenure track faculty and may be valued but is not expected of non-tenure track faculty members.

In the area of scholarship and creative activity, we will evaluate the amount and quality of a tenure-track faculty member's performance in the following areas: (1) Published scholarship - disciplinary or interdisciplinary, print or electronic - in all areas related to sustainability, social justice, applied technology, ecology, and other related fields as well as the broad area of civic engagement and social change. (2) The scholarship necessary to prepare course offerings on new topics or new approaches to established topics (3) The scholarship and professional activities necessary to support the development of Sustainability as a discipline and to further the aims of the program. And (4) scholarship in support of or shaped by social, intellectual, and political efforts to address pressing social and environmental issues and challenges. Where the intended process of peer review is not in place, the use of an intellectual or creative product to address, highlight, and engage a social or environmental challenge can help demonstrate the quality and impact of the scholarship.

In Sustainability, a variety of forms of engagement with academic research in the field will be valued. This includes published books and peer reviewed

articles as well as other forms of original research that are indicators of ongoing contributions to one's discipline. This might include book reviews, contributions to collected works, and similar engagement with research in the field or the advancement of public understanding of vital issues and the policy process. It might also include professional documents, educational materials, applied social and scientific research and other less-formal methods aimed at the achievement of a more sustainable, just, verdant society.

Non-tenure-track instructors are not expected to engage in such scholarship.

4. The burden is always on the candidate to document the excellence of one's work. In cases of shared or multiple authorship, clarification of the degree of one's participation is expected. In cases of conference presentations or proceedings, clarification should be provided with regard to the selectivity of the review process. Same as University standards. Clarifications of the evaluation of scholarly and creative activities are as follows.

Typically, central to judgments regarding scholarly and creative activity are:

1. The capacity to bring scholarly or creative projects to completion may be demonstrated by a publication and presentation record, as well as by periodic grant reports (where applicable). For projects that have not yet resulted in publication, current unpublished manuscripts and comments by knowledgeable peers both internal and external to the University are appropriate to include in the candidate's file.
2. A mix of scholarly activities appropriate to one's appointment e.g., in some cases scholarly activity will be primary, in others creative activity.
3. Judgments of the worth and significance of the work by those qualified to make such judgments. These may include disciplinary peers, funding agencies, conference professional organizations, ad hoc groups, such as evaluation, judging, or refereeing panels.
4. Documentation of the impact of one's work
 - with students
 - inclusion into the classroom or teaching laboratory

- within the scholarly area
- within higher education generally
 - on documented standards of best practices in pedagogy
 - in the application of one's work
 - as evident in citations of one's work
 - on public policy or institutions
 - in the artistic/cultural realm
 - or in educational settings

In Sustainability, scholarship and professional activities necessary to support the development of the study and understanding of sustainability as a discipline are particularly valued. Importantly, documentation of impact can be shown through scholarship or actions that enhances the public understanding of pressing environmental issues, social issues, innovative solutions, emerging technology and policy matters.

5. Just as in the case of traditional scholarship involving the discovery of new knowledge, when one's work consists of pedagogical, integrative, or applied scholarship, its significance may be documented by demonstration of clear goals, adequate preparation, appropriate methods, significant results, effective presentation, and reflective critique. Presentation before peers and colleagues and advancing the discipline are also expectations of alternate forms of scholarship. Same as the University standards.

In Sustainability applied and theoretical research are both valued. Presentations before and activities with peer groups, community members, and policy-makers that apply scholarly knowledge to "real-world" problems and issues are particularly valued. The contributions faculty members make to the organizational life of institutions of civil society (e.g. non-profit, community-based organizations), and the use of these contributions in the development of an applied research agenda that is disseminated in both academic and non-academic forums is valued by the program.

6. The University understands excellence in a variety of scholarly or creative activities to embody the following:

1. Books should be published by reputable academic or trade presses and reviewed in appropriate journals. Same as University standards

2. Articles, essays, and creative writing should be published in appropriate scholarly/creative journals or venues, whether print or electronic. Some assessment should be made as to the quality of the journal in which the piece appears, in particular, its scholarly/creative reputation and whether or not the journal or proceedings are peer reviewed. Additionally, college publications such as lab manuals and other teaching publications should be evaluated by internal or external peers. The quality of material submitted to or contained in government documents should be judged by the level of its pre-publication review.

In sustainability we particularly value interdisciplinary scholarship. Consequently, research published outside of the strict field of sustainability is valued equally with publications in sustainability and environmental science.

3. Scholarly and creative activity that involves students as co-presenters, co-participants, or co-authors.

4. A presentation should be evaluated on the quality of its content and on the prestige of the meeting where it was delivered. Qualitative judgments are best made when copies of presentations are made available. National and regional meetings should rank higher than local meetings in most instances. Scholarly presentations should be ranked more highly than non-scholarly ones. Competitive selections as well as presentations receiving disciplinary acknowledgement for excellence should be noted. In most disciplines a record of scholarship based on presentations alone will not be evaluated as highly as one including refereed publications. Same as University standards

In sustainability, the public presentation of research in academic settings, for example serving as a discussant or panel chair at an academic conference, major public event or significant civic gathering is valued as an important contribution to the discipline. However, public presentations in non-academic settings are also highly valued.

5. Work in the arts may be evaluated by a number of different measures: assessment of its quality by peers or professional critics; the reputation of the gallery, museum, or other artistic venue where it is shown or presented; the respect afforded the organization for which it is performed or

under contract; or some other measure of its success or impact (e.g. royalties, awards, or impact on public debate or on other artists). Same as University standards

6. Other forms of scholarly or creative activity that may appear in emerging scholarly or artistic media such as online journals, websites, fora and blogs, may be included as well, provided that work is of sufficient quality, as evaluated by knowledgeable faculty or external evaluators.

7. Reviews (if submitted as documentation) from appropriate journals and other outlets specified at the School and Program level may be included. Where reviews are included in a file as evidence of the worth of scholarly or artistic work, attention should be given to the professional credentials of the reviewer and the reputation of the journal or publication. Same as University standards

8. Professional activities undertaken as a practitioner or consultant are considered scholarly activity when they go beyond the routine application of knowledge to the creation of new knowledge and the development of new standards for practice. Such qualities distinguish between scholarship and professional service. Those making the judgments regarding the standards for applied research necessarily involve more than clients and include academic peers familiar with the area of practice under consideration. These activities may include but are not limited to serving as a peer reviewer or an external program or department reviewer, serving on editorial boards of scientific or other professional journals and publications, and conducting contract research with the appropriate evaluation by the contracting government agency or private company.

9. In those disciplines with strong expectations of practice to maintain current competency, appropriate standards for determining the significance of this work will be developed at the Program level and approved through the standard procedure. Same as University standards

10. Grants or monetary awards that are funded or reviewed as fundable from governmental or non- governmental organizations are considered examples of scholarship if those grants and awards are subject to external peer review. In addition, grant applications that receive positive reviews from

the external evaluators and the College faculty may be included as evidence of scholarship.

11. Faculty engaged in community outreach can make a difference in the communities and beyond by defining or resolving relevant social problems or issues, by facilitating organizational development, by improving existing practices or programs, and by enriching the cultural life of the community. Scholarship may take the form of widely disseminating the knowledge gained in community-based projects in appropriate professional venues in order to share its significance with those who do not benefit directly from the project. Same as University standards

3. University and Community Service

1. The faculty role includes contributions to the achievement of the University's mission through effective participation in governance activities, including leadership roles at the Program, School, or University-wide levels. These contributions may require the capacity to work collaboratively with other members of the University community, including activities related to alumni and the University Foundation or other agencies.

In Sustainability we will value a faculty member's efforts to enhance sustainability and social and ecological awareness on campus as well as enhance the sustainability of the campus community, operations and facilities.

2. Faculty may also contribute in broader arenas such as state, regional, national or international organizations and disciplinary/professional associations. In addition, faculty may contribute to the University's public mission through service to our community, region, state or nation. Per the Carnegie definition, community engagement and service-learning that enriches scholarship, research, and creative activity; enhances curriculum, teaching and service-learning; prepares educated, engaged citizens; strengthens democratic values and civic responsibility; addresses critical societal issues; contributes to the public good; and enriches scholarship. Community engagement and service-learning are particularly valued at Stockton. Same as University standards

In Sustainability, community service that provides education, instruction, and empowerment to individuals or community groups is highly valued. Such community activities might include (1) courses offered, (2) presentations made, (3) the building of and/or contribution to, programs open to members of the local community, (4) evaluations of, or proposals for, public policies, and (5) service to community organizations.

3. The University expects faculty in their first five years of service to serve the University and community at levels commensurate with their rank. Faculty who are tenured, have multi-year contracts, and/or are of senior rank would be expected to have more substantial records in this area, as demonstrated by achievements in leadership on campus, in the community, to their disciplines, and to professional organizations. Same as University standards

4. Evaluation of achievements in this area focuses on the significance of participation, the impact of service, the scope of responsibilities, the effectiveness of participation, and contributions to the functioning, administration, and development of the University and other entities. Clear goals, adequate preparation, and appropriate methods of providing service, significant results of the service, and reflection on the contribution and its use to improve the quality of future service are all aspects of documenting achievement in campus and community service. Sustained, significant service is expected to meet the minimum requirement for this responsibility. The University standards state that compensated service is generally not sufficient to meet the minimum requirements. However, NAMS values all service irrespective of whether it is compensated or uncompensated.

5. In the Sustainability Program, seeking opportunities outside the classroom to enhance student learning of the subject matter may also constitute service. These opportunities might include: The development and supervision of hands-on learning opportunities, possibilities for research, internships and professional training; The development and fostering of opportunities for community, social and policy engagement for our students through internships, civic involvement, and research endeavors; And the supervision of independent studies and special projects.

5. Evidence of effectiveness in University or community service may include such items as: Same as University standards

1. One or more instances when one has used one's professional skills or knowledge for the benefit of the University, or of a non-University group or individual.
2. Contributions to professional organizations that are focused on service or professional responsibility as opposed to scholarship, research, or artistic/creative work. For example, an officership or service on a professional board may be more

appropriately listed here, whereas editing a special issue of a journal may be more appropriately listed under the section on scholarship.

3. General civic or community activities to which one has contributed one's professional skills or a significant amount of time, talent, energy, and involvement beyond that which might be expected by the usual citizen or member.