Thank you for your interest in the Standards and Guidelines developed by the Council for the Advancement of Standards in Higher Education (CAS). This CAS member association has permission to post a link to these standards on their website. Standards are developed through a consensus model of member associations and other experts, including the association on whose page this link is found. You are invited to use the attached materials in the design and assessment of your programs and for your staff training and development. The materials may not be duplicated or redistributed for other purposes without permission from CAS.

These standards and all other standards are available along with information on self-assessment procedures in the most recent edition of the book CAS Professional Standards for Higher Education. You are particularly encouraged to examine the learning and developmental outcomes (see www.cas.edu/learningoutcomes) in the design and assessment of your programs.

This set of standards has an accompanying Self-Assessment Guide (SAG) available for purchase from www.cas.edu for use in program evaluation.

CAS MISSION STATEMENT

CAS, a consortium of professional associations in higher education, promotes the use of its professional standards for the development, assessment, and improvement of quality student learning, programs, and services.

CAS STANDARDS AND GUIDELINES

Each set of CAS standards contains 12 common criteria categories (referred to as “general standards”) that have relevance for each and every functional area, no matter what its primary focus. In addition to the general standards, all functional area standards are comprised of both specialty standards and guidelines. All standards use the auxiliary verbs “must” and “shall” and appear in bold print so that users can quickly identify them. Guidelines are designed to provide suggestions and illustrations that can assist in establishing programs and services that more fully address the needs of students than those mandated by a standard. CAS guidelines appear in regular font and use the auxiliary verbs “should” and “may.”

OVER FORTY YEARS OF PROFESSIONAL SERVICES

The Council for the Advancement of Standards in Higher Education (CAS) has been the pre-eminent force for promoting standards in student affairs, student services, and student development programs since its inception in 1979. For the ultimate purpose of fostering and enhancing student learning, development, and success and in general to promote good citizenship, CAS continues to create and deliver a dynamic and credible book of professional standards and guidelines and Self-Assessment Guides that are designed to lead to a host of quality-controlled programs and services. These standards respond to real-time student needs, the requirements of sound pedagogy, and the effective management of over 45 functional areas, consistent with institutional missions. Individuals and institutions from more than 40 CAS member organizations comprise a professional constituency of over 115,000 professionals.

DISCLAIMER

The standards and guidelines published in CAS Professional Standards for Higher Education by the Council for the Advancement of Standards in Higher Education (CAS) and referred to in each of the CAS Self-Assessment Guides (SAGs) are developed through the voluntary efforts of leaders of professional associations in higher education. The purpose of the standards and guidelines is to identify criteria and principles by which institutions may choose to assess and enhance various areas of their academic, administrative, or student affairs programs and services. CAS specifically disclaims any liability or responsibility for any perceived or actual shortcomings inherent in the text or application of the standards. Further, CAS does not certify individuals nor accredit programs. No institution, whether it has met some or all of the CAS standards, is authorized to indicate that it is “approved, endorsed, certified, or otherwise sanctioned by CAS.” Institutions that have conducted a self-assessment of one or more functional areas addressed by CAS Standards and Guidelines using the appropriate CAS Self-Assessment Guide (SAG) may, where that self-assessment provides evidence that an institution meets these standards, make accurate representations to the effect that the designated program or service meets the CAS Standards.

Please direct your questions to the CAS Executive Director (executive.director@cas.edu or 202-862-1400).
The history of undergraduate research mirrors the history of higher education itself. Many of the principles found in modern-day undergraduate research echo features of the tutorial model of education: close academic connections between students and faculty, mentorship and apprenticeship, problem solving, and experiential learning (Lucas, 1994). As universities expanded along with access to college, undergraduate research emerged as a way to continue educational practices of the past in a new educational environment with greater size and scale.

The beginnings of undergraduate research programs are not seen in a singular history, but rather in the histories of disciplines, professional organizations, and governmental agencies that recognized the value of including undergraduate students in the research enterprise. The National Science Foundation (n.d.) administered a formal program for undergraduate research from 1958-1981, and since 1986 has offered support via the Research Experiences for Undergraduates (REU) program. Efforts within disciplines to recognize and promote undergraduate research led to the development of two cross-disciplinary national organizations: the Council on Undergraduate Research (CUR) and the National Conferences on Undergraduate Research (NCUR). CUR was formed in 1978 by a group of chemistry professors and now includes more than 13,000 individual and more than 700 institutional members (CUR, n.d.-b). NCUR began in 1987 as an interdisciplinary conference for undergraduate students from across the United States to present their research and scholarship (CUR, n.d.-d), complementing the introduction of undergraduate poster sessions at professional meetings. The two organizations merged in October 2010 (CUR, n.d.-a) to provide comprehensive resources for faculty and students engaged in undergraduate research.

The history of undergraduate research programs emerging as institutional units is also varied, as there is no singular preferred structure or model. Undergraduate research offices vary in their location within an institution (reporting to a provost, lead research administrator, or dean, among other possibilities), as well as in their own organizational structure (led by a full-time or part-time faculty or professional staff member, often supported by other professional and/or student staff). Kinkead and Blockus (2012) delineate common elements of undergraduate research offices and provide examples to illustrate variation across institutions. The range of possible models signals the importance of tailoring an undergraduate research program or office to the mission, core values, needs, and resources of the particular institution it serves.

As undergraduate research has evolved as a field, basic tenets have emerged that are shared regardless of academic discipline or institution type. First, research is broadly defined so that it encompasses all types of scholarly and creative activities present at an institution. CUR defines undergraduate research as, “an inquiry or investigation conducted by an undergraduate student that makes an original intellectual or creative contribution to the discipline” (“Mission”, n.d.-c, para. 3). This definition underscores the idea that students are contributing meaningful work to a discipline rather than participating in a simulation exercise divorced from “real” research. Undergraduate research is genuine participation in the activity of a discipline. Students learn the processes, habits of mind, and principles of scholarship used by faculty researchers through active participation in original inquiry. The contributions made by undergraduates are evident in the papers and other works that they publish; the creative work they perform and exhibit; and the presentations they make at regional, national, and international meetings and conferences.

Other basic tenets of undergraduate research have been delineated in CUR’s Characteristics of Excellence in Undergraduate Research (COEUR) (Rowlett, Blockus, & Larson, 2012). COEUR (2012) outlines best practices for supporting and sustaining undergraduate research, such as having an institutional
commitment, providing budgetary support and resources, investing in research infrastructure (e.g., space, equipment), and providing opportunities for students to disseminate their research.

Undergraduate research has been identified as a high-impact practice for student learning and development, indicating the important role undergraduate research can play in the college experience (Kuh, 2008). Collaborative research with faculty allows for extended interaction, frequent feedback about performance, and opportunities to synthesize and apply learning, all of which support student engagement and, thereby, persistence and retention. Undergraduate researchers develop and/or refine aspirations for graduate education and deepen their understandings of research methods and procedures. Students also report that undergraduate research fosters the development of broadly applicable skills, such as critical thinking, communication, collaboration, and problem solving (Laursen, Hunter, Seymour, Thiry, & Melton, 2010). Laursen et al. (2010) provide a significant review of research on student outcomes and a detailed analysis of students’ gains from participating in intensive summer research experiences in the sciences.

Current Trends and Challenges
In 2014, CUR adopted five strategic pillars that serve as benchmarks for undergraduate research programs and signposts for future directions in program development. Analysis of these pillars in the context of contemporary issues helps to highlight current trends and challenges in the field.

Integrating and Building Undergraduate Research into Curriculum and Coursework
As colleges and universities strive to involve more students in high-impact educational practices like undergraduate research, they may encounter challenges relating to scale and capacity. Curriculum and coursework represent promising avenues for involving more students in research experiences through such approaches as problem-based learning or extended, collaborative projects within learning-community contexts. Karukstis and Elgren (2007) discuss curricular elements and structures, as well as institutional practices, which contribute to a “research-supportive” curriculum.

Assessment of the Impact of Undergraduate Research
The CAS Standards and Guidelines for Undergraduate Research Programs section on assessment underscores the importance of measuring achievement of program goals and intended student learning outcomes. Assessment has primary implications in the local context, suggesting ways of improving programs and services. But institutional assessment efforts can benefit from—and, in turn, inform—developments in the field of undergraduate research. Established instruments, such as the Undergraduate Research Student Self-Assessment (URSSA) (Hunter, Weston, Laursen, & Thiry, 2009), the Survey of Undergraduate Research Experiences (SURE) (Lopatto, 2004), and SUNY-Buffalo State’s Longitudinal Student Outcomes Evaluation (Singer & Zimmerman, 2012), provide a mechanism for collecting data across programs and time points which can be usefully combined with other approaches, such as interviews and focus groups. Laursen (2015) provides an additional review of current assessment studies and suggestions for future directions in program evaluation.

Diversity and Inclusion in Undergraduate Research
Diversity and inclusion, as reflected in the CAS standards for access, equity, diversity, and inclusion, are critical issues in undergraduate research. A growing body of research from different types of institutions documents efforts to expand participation among students from underrepresented groups at early stages of their academic careers, and across the full range of academic disciplines (Boyd & Wesemann, 2009). Such initiatives are of critical importance in engaging students of diverse backgrounds in academic inquiry, which can influence the shape and content of that inquiry along with the paths pursued by those students in college and beyond.

Innovation and Collaboration in Undergraduate Research
Collaboration in undergraduate research can take many forms, such as working as part of an interdisciplinary team or contributing to a cross-institutional faculty research collaboration. Institutions are now experimenting with other collaborative models, exploring partnerships with businesses and non-profit organizations to design research projects related to real-world needs. These efforts may be supported by intra-institutional partnerships with service learning, extension services, or other allied units. A related trend is the growing emphasis on entrepreneurship and innovation at universities, as evidenced by the development of makerspaces, business incubators, and entrepreneurship centers. Entrepreneurship experiences share many elements in common with undergraduate research—hands-on work on a project with no predetermined outcome, often in collaboration with team members—and may represent new opportunities for executing or applying research. To support institutions and practitioners focused on undergraduate research, CUR maintains a collection of vignettes illustrating innovation and collaboration in undergraduate research (CUR, 2016).

Internationalization and Undergraduate Research
International research exchanges and collaborations are concrete illustrations of the global nature of contemporary research. International fieldwork experiences can benefit undergraduate research in a variety of fields, from conservation biology to linguistics, anthropology to civil engineering. Logistical challenges associated with international work may be addressed most effectively through collaboration with other campus offices with expertise in study abroad, travel, and international affairs. The internationalization of undergraduate research bears great potential for enhancing students’ global learning, appreciation of diversity, and engagement with the difficult problems and questions that transcend borders. LaPlant and DeCosmo (2014) provide additional insight for practitioners focused on undergraduate research abroad.

REFERENCES


LaPlant, J. T., & DeCosmo, J. (2014). Undergraduate research goes abroad. CUR Quarterly, 35(2).


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UNDERGRADUATE RESEARCH PROGRAMS
CAS Standards and Guidelines

Guiding Principle: Students and Their Environments

PART 1. MISSION

1.1 Programs and Services Mission

The mission of Undergraduate Research Programs (URP) must be to engage students in mentored investigative and creative activity to experience firsthand the processes of scholarly exploration and discovery.

URP must develop and define its mission.

The URP mission must be consistent with the mission of the department, college, division, institution, and applicable professional standards.

The URP mission must be appropriate for the institution's students, designated clients, and other constituents.

Whether centralized or decentralized in its administration, URP must advance its mission.

1.2 Mission Statement

URP must implement, disseminate, regularly review, and update its mission statement.

Mission statements must reference student learning, development, and success.

PART 2. PROGRAM AND SERVICES

2.1 Program and Services Goals

Undergraduate Research Programs (URP) must be guided by a set of written goals and objectives that are directly related to the stated mission.

URP must provide opportunities for undergraduate students to conduct an inquiry and investigation that makes an original intellectual or creative contribution to the discipline.

URP must create an active learning environment supportive of scholarship and research.

URP must create a collegial climate in which to conduct research.

URP must integrate research activities with professional and liberal education.

The URP goals must be aligned with institutional priorities and expectations of the functional area.

URP must regularly develop, review, evaluate, and revise its goals.

URP must communicate goals and progress toward achievement to appropriate constituents.
2.2 Program Information and Services

URP must provide relevant information, services, and resources consistent with its mission and goals.

URP must provide a progression of research and research-like experiences to prepare students to undertake undergraduate research.

Undergraduate research may be performed within various settings and structures. URP should provide a range of options so that all students may find appropriate opportunities. Activities may be initiated by students, faculty, programs, or institutions. Examples of such opportunities may include first-year experiences, living-learning programs, honors programs, graduation requirements, education abroad, general education courses, major requirements, capstone courses, internships, service learning, and community-based research.

URP must encourage research that is commensurate with scholarship and practice in the disciplines and enables students to recognize work that is original, current, and significant.

URP must provide students with information about diverse types of research across a range of disciplines at the institution.

URP must provide opportunities for research dissemination, including oral and written presentations.

URP must provide opportunities for undergraduate students to present their research to peers, faculty members, professionals, and appropriate others.

URP should encourage attendance at undergraduate and disciplinary research conferences. These may include institutional, local, regional, national, and international meetings.

URP must provide support, training, and professional development for faculty and staff who mentor undergraduate research. Training must include research policies and procedures and URP goals and opportunities.

URP must develop and implement strategies for outreach and promotion.

2.3 Program Structure and Framework

URP must have clearly stated, current, relevant, and documented
- goals and outcomes
- policies and procedures
- responsibilities and performance expectations for personnel
- organizational charts demonstrating clear channels of authority

URP must be purposefully structured and resourced to balance efficiency and effectiveness and to achieve programmatic and student learning and development outcomes.

Regardless of organizational structures, URP must work in close consultation and collaboration with others with expertise and resources to meet the needs and interests of students and designated clients.
URP must collaborate with colleagues and departments across the institution to promote student learning, development, and success.

URP should collaborate with appropriate offices to attract and serve underrepresented students.

2.4 Program Design

URP must be intentionally designed to
- achieve predetermined student learning and development outcomes
- incorporate research and theories on student learning, development, and success
- respond to needs of individuals, constituents, and populations with distinct needs
- ensure access for students and designated clients

URP should encourage, support, and promote undergraduate research opportunities that involve a wide range of students in various life circumstances and disciplines.

URP must create an infrastructure to recognize and reward research excellence and successful completion of research.

URP must require that students submit documentation of their completed work.

Within institutional guidelines, URP must have policies and procedures that reward and incentivize participation of faculty, staff, and students.

Incentives for faculty and staff may include reduced loads, stipends, priority consideration for upcoming grants, travel and research resources, and additional consideration for promotion, tenure, and merit pay.

Incentives for students may include special notation on official transcripts, travel and research funding, stipends, recognition, awards, and reduced charges for research courses.

URP may advocate for the institution to revise intellectual property policies to give faculty, staff, or students some claim to copyright or patent rights.

URP personnel should have access to ancillary research resources, such as those provided by computational facilities, library and museum collections, and digital archives.

PART 3. STUDENT LEARNING, DEVELOPMENT, AND SUCCESS

3.1 Program Contribution to Student Learning, Development, and Success

Undergraduate Research Programs (URP) must contribute to students’ formal education, which includes both curricular and co-curricular experiences.

URP must regularly establish mechanisms for individual or small-group mentoring (curricular and/or extracurricular) based on the intellectual readiness of students. Mentoring must address
- research design
- appropriate forms of data collection, verification, and analysis
- information retrieval
• all pertinent domains of responsible conduct of research, including oversight of research on human subjects
• appropriate forms of written and oral scholarly communication

URP must contribute to students' progression and timely completion of educational goals.

URP must allow students to define and pursue their interests within the context of the research activity.

URP must actively work with all interested participants to select a research experience suitable to their needs, skills, and interests.

URP should offer opportunities for academic credit for research activity where applicable, feasible, and appropriate.

URP must help students and designated clients prepare for their careers and meaningful contributions to society.

URP must work with the institution to identify relevant and desirable student success outcomes. URP should offer a range of research experiences appropriate for students at various developmental levels and abilities.

URP must identify relevant and desirable student learning and development outcomes.

URP must promote intellectual rigor and student intellectual growth and development.

URP must provide programs, services, and resources to assist students participating in undergraduate research in developing knowledge and critical thinking outcomes.

URP must implement strategies and tactics to achieve these outcomes.

3.2 Student Learning and Development Domains and Dimensions

URP must align predetermined student learning and development outcomes with the CAS learning outcomes model or other recognized student learning and development models.

URP must align predetermined student learning and development outcomes with the institutional framework for student outcomes.

The CAS student learning and development outcomes model includes six broad categories (called domains), meant to identify the aspects of learning experienced by students through engaging with programs, disciplines, or other learning opportunities. The domains are further clarified through dimensions. The dimensions of student learning and development allow for a more focused assessment approach and opportunities for alignment with institutional mission and priorities.

Domain: knowledge acquisition, integration, construction, and application

• Dimensions: understanding knowledge from a range of disciplines; connecting knowledge to other knowledge, ideas, and experiences; constructing knowledge; and relating knowledge to daily life
Domain: cognitive complexity

- Dimensions: critical thinking, reflective thinking, effective reasoning, and creativity

Domain: intrapersonal development

- Dimensions: realistic self-appraisal, self-understanding, and self-respect; identity development; commitment to ethics and integrity; and spiritual awareness

Domain: interpersonal competence

- Dimensions: meaningful relationships, interdependence, collaboration, and effective leadership

Domain: humanitarianism and civic engagement

- Dimensions: understanding and appreciation of cultural and human differences, social responsibility, global perspective, and sense of civic responsibility

Domain: practical competence

- Dimensions: pursuing goals, communicating effectively, technical competence, managing personal affairs, managing career development, demonstrating professionalism, maintaining health and wellness, and living a purposeful and satisfying life

[Learning and Development Outcomes: See the Council for the Advancement of Standards Student Learning and Development Outcomes (www.cas.edu/learningoutcomes) for examples of outcomes related to these domains and dimensions.]

### 3.3 Assessment of Student Learning and Development

**URP must assess the student learning and development outcome domains and dimensions relevant to the functional area.**

**URP must provide evidence of the extent to which student learning and development outcomes are achieved.**

**URP must provide evidence of the extent to which student success outcomes are achieved.**

**URP must use evidence to create strategies for improving student learning, development, and success.**

**PART 4. ASSESSMENT**

#### 4.1 Establishing a Culture of Assessment

Undergraduate Research Programs (URP) must develop assessment plans and processes that document progress toward achievement of mission, goals, outcomes, and objectives.

**URP must design assessment plans that incorporate an ongoing cycle of assessment activities.**
URP must have fiscal, human, professional development, and technological resources to develop and implement assessment plans.

4.2 Program Goals, Outcomes, and Objectives

URP must identify goals, outcomes, and objectives to guide its work.

URP must identify assessment methods that will allow for the collection of relevant data on its goals, outcomes, and objectives.

When collaborating with other departments on assessment activities, these activities must be consistent with the URP mission and assessment plan.

4.3 Assessment Plan and Process

URP must structure assessment initiatives using the steps of the assessment cycle:
- set program goals, outcomes, and objectives
- develop and implement assessment plan
- review and interpret findings
- develop a plan for data use, continuous improvement, and reassessment
- implement an improvement plan
- review and monitor changes that have been made

URP must implement the assessment process with methods that reflect universal design principles.

URP must employ ethical practices in the assessment process.

URP must implement assessment processes in a way that is culturally responsive, inclusive, and equitable.

URP must engage students, faculty, staff, administrators, and other relevant constituents in assessment activities.

URP must incorporate in assessment the judgments of faculty and staff mentors and reflections of undergraduate student researchers.

4.4 Gathering Evidence

URP must identify priorities for assessment, including both formative and summative approaches.

URP must employ multiple methods and measures of data collection.

URP must develop manageable processes for gathering, interpreting, and evaluating data.

URP must adhere to institutional policies related to data access and management.

URP must ensure measures and methods are rigorous and reflect characteristics of validity, reliability, and trustworthiness.
4.5 Review and Interpret Findings

URP must use methods to analyze and interpret data that correspond with objectives and questions considered within overall assessment goals.

URP must disaggregate data to address the objectives and questions considered in the assessment project.

4.6 Reporting Results and Implementing Improvement

URP must use assessment results to demonstrate student learning, development, and success.

URP must use assessment results to demonstrate effectiveness and continuous improvement.

URP must use evidence from assessment activities to inform decision-making and planning for continuous improvement.

URP must monitor improvements implemented based on assessment results.

URP must apply results for future planning.

URP must inform constituents of assessment results and how data have been used for continuous improvement.

Guiding Principle: Advocating for Diverse, Equitable, and Inclusive Communities

PART 5. ACCESS, EQUITY, DIVERSITY, AND INCLUSION

5.1 Inclusive and Equitable Educational and Work Environments

Within the context of each institution’s mission and in accordance with institutional policies and applicable codes and laws, Undergraduate Research Programs (URP) must create and maintain educational and work environments for students, faculty, staff, administrators, designated clients, and other constituents that are welcoming, accessible, inclusive, equitable, and free from bias or harassment.

URP must not discriminate on the basis of race; color; national origin; sex; disability; age; cultural identity; ethnicity; nationality; citizenship; family educational history (e.g., first generation to attend college); political affiliation; religious affiliation; sexual orientation; gender identity and expression; marital, family, social, economic, place of residence, or veteran status; or any other basis included in codes, laws, and institutional policies.

URP should encourage underrepresented students (e.g., gender, ethnicity, age, disability, marital status, socioeconomic status, academic major, religious affiliation, sexual orientation) circumstances to apply and participate in research experiences.

URP should actively encourage and recruit participation from departments and disciplines underrepresented in undergraduate research experiences.

5.2 Organizational Aspects of Access, Equity, Diversity, and Inclusion
URP must provide equitable access to facilities and resources for all constituents.

URP must provide reasonable accommodations if barriers to full participation are present.

URP must respond to the needs of all constituents when establishing hours of operation and developing methods for delivering programs, services, and resources.

URP must identify and address actions, policies, and structures within its operation that perpetuate systems of privilege and oppression.

5.3 Advocating for Access, Equity, Diversity, and Inclusion

URP must advocate for accessible facilities and resources, and address issues that impede access.

URP must advocate for inclusion, multiculturalism, and social justice within the institution.

URP must enact culturally responsive, inclusive, respectful, and equitable practices in the provision of services.

URP must develop plans for ongoing professional development on cultural competence and workplace inclusion.

5.4 Implementing Access, Equity, Diversity, and Inclusion

URP must establish goals for access, equity, diversity, and inclusion.

URP must address the characteristics and needs of diverse constituents when establishing and implementing culturally relevant and inclusive programs, services, policies, procedures, and practices.

URP must ensure that personnel are trained in diversity, equity, access, and inclusion and are held accountable for applying the training to its work.

URP must have an established protocol for, and foster expectation of, bias incident reporting.

Personnel within URP must cultivate understanding of identity, culture, self-expression, and heritage.

URP leaders must promote a research environment that recognizes and respects all aspects of diversity. This must include research topics and the recruitment, access, and full participation of diverse students in research activity.

Personnel within URP must promote respect for commonalities and differences among people within their historical and cultural contexts.

When educational and/or workplace accommodations are requested, URP must provide individuals with an interactive process to determine reasonable accommodations.

Guiding Principle: Organization, Leadership, and Human Resources

PART 6. LEADERSHIP, MANAGEMENT, AND SUPERVISION
6.1 Leadership

Undergraduate Research Programs (URP) leaders must model ethical behavior and demonstrate alignment with institutional mission, goals, and ethical practices.

Leaders with organizational authority for URP must provide management and supervision as well as lead strategic planning and program advancement.

URP leaders must
- create a vision for the functional area
- communicate goals
- model and expect commitment
- build teams, coalitions, and alliances
- influence others to contribute to the effectiveness and success of the unit
- advance diversity, equity, access and inclusion goals in the workplace
- incorporate data and information in decision making
- develop a risk management plan for the organization
- incorporate sustainable practices in the design of programs, services, and facilities
- develop and empower new leaders from within the organization
- collaborate with colleagues and departments across the institution
- adhere to organizational constraints

URP leaders must advance the functional area by
- advocating for and actively promoting the functional area’s mission and goals
- communicating with constituents about current issues affecting the profession
- identifying and addressing individual, organizational, and environmental conditions that foster or inhibit mission achievement
- facilitating discussion and decisions regarding program advancement
- advocating for representation in strategic planning processes at departmental, divisional, and institutional levels

6.2 Management

URP managers must
- be empowered to demonstrate effective management
- plan, allocate, and monitor the use of fiscal, physical, human, intellectual, and technological resources
- develop plans for scholarship, leadership, and service to the institution and the profession
- engage diverse perspectives from within and outside the unit to inform decision making

6.3 Supervision

URP supervisors must
- incorporate institutional policies and procedures in the development of strategies for recruitment, selection, professional development, supervision, performance planning, succession planning, evaluation, recognition, and reward of personnel
- consult with institutional HR personnel to access and receive education and training that influence successful performance of personnel
• provide feedback on personnel performance
• identify and resolve workplace conflict
• follow institutional policies for addressing complaints
• provide reports and activity updates to management
• work with personnel to develop plans for scholarship, leadership, and service to the profession and institution
• provide supervision and support so that personnel may complete assigned tasks

6.4 Strategic Planning

URP leaders, managers, and supervisors must facilitate ongoing strategic planning processes that
• facilitate continuous development, implementation, assessment, and evaluation of program effectiveness and goal attainment congruent with institutional mission and ongoing planning efforts
• support ongoing assessment activities that improve student learning, development, and success
• utilize philosophies, principles, and values that guide the work of the functional area
• promote environments that provide opportunities for student learning, development, and success
• develop, adapt, and improve programs and services in response to the needs of changing environments, populations served, and evolving institutional priorities
• engage many diverse constituents and perspectives from within and outside the unit to inform the development and implementation of the planning process
• result in a vision and mission that drive short- and long-term planning
• set goals and objectives based on the needs of the populations served, intended student learning and development outcomes, and program outcomes

PART 7. HUMAN RESOURCES

7.1 Staffing and Support

Undergraduate Research Programs (URP) must identify the level of staffing necessary to achieve its mission and goals.

URP must be staffed by individuals qualified to accomplish its mission and goals. Personnel include full-time and/or part-time faculty, staff, administrators, and paraprofessionals (e.g., student employees, interns, graduate assistants, and volunteers).

URP must have access to technical and support personnel to accomplish its mission.

URP professional personnel either must hold an earned graduate or professional degree in a field relevant to their position or must possess an appropriate combination of educational credentials and related work experience.

7.2 Employment Practices

URP must establish procedures and expectations for personnel recruitment, selection, training, supervision, performance, and evaluation.

URP leaders must
• ensure that all personnel have written position descriptions
• regularly review position descriptions
• maintain copies of up-to-date resumes/curriculum vitae for all currently employed personnel
• implement recruitment and selection/hiring strategies that demonstrate a deliberate effort to diversify the workforce
• develop promotion practices that are fair, inclusive, proactive, and non-discriminatory

URP leaders must establish, in partnership with personnel and aligned with institutional policies, work arrangements (e.g., schedules, remote work) that achieve department objectives.

Personnel within URP must have written performance goals, objectives, and outcomes for each performance cycle to be used to plan, review, and evaluate work and performance. The performance plan must be updated regularly to reflect changes during the performance cycle.

Results of individual personnel evaluations must be used to recognize personnel performance, address performance issues, implement individual and/or collective personnel development and training programs, and inform the assessment of URP.

7.3 Personnel Training and Development

URP personnel must receive training when hired and professional development throughout their employment.

URP personnel must engage in continuing professional development activities to keep abreast of the research, theories, legislation, policies, and advancements that affect its programs and services.

URP personnel must receive specific training on requirements of responsible conduct of research.

The professional development of staff and faculty engaged in URP should address
• identification of the compatibility between research activities and student interests
• establishment and maintenance of relationships with academic and other units on campus
• development, implementation, and assessment of learning goals
• preparation, mentoring, and monitoring of diverse students involved in research experiences
• use of discovery-based strategies that support independent inquiry and lead to undergraduate research
• education and support of students to apply learning from research experiences to future endeavors

URP must provide personnel with appropriate professional development opportunities or resources that facilitate individual professional development goals and improve competence, skills, and leadership capacity.

URP leaders should advocate for institutional support of professional development activities.

URP personnel must have access to resources and receive specific training on policies, procedures, and laws related to
• the programs and services they support
• privacy and confidentiality
• student records and sensitive institutional information
• systems and technologies necessary to perform their assigned responsibilities
• sexual misconduct, harassment, and workplace violence

URP personnel must be trained on how to recognize and address systems of oppression in the workplace and facilitate a welcoming, inclusive work environment.

URP personnel must be trained on how and when to refer those in need of additional assistance to qualified personnel, and must have access to a supervisor for assistance in making these judgments.

URP leaders must ensure that personnel are knowledgeable about and trained in safety, emergency procedures, identifying threatening conduct or behavior, crisis prevention, response, and reporting.

7.4 Paraprofessional Personnel

Paraprofessionals working in URP must be enrolled in an appropriate field of study and/or have relevant experience.

Paraprofessionals working in URP must be carefully selected, trained, supervised, and evaluated by personnel who possess applicable educational credentials, work experience, and have supervisory experience.

URP leaders must accommodate the dual roles paraprofessionals may have as both student and employee.

URP leaders must
• adhere to parameters of paraprofessionals' job descriptions
• articulate intended student learning and development outcomes in student employee job descriptions
• adhere to agreed-upon work hours and schedules
• offer flexible scheduling options as needed by the student employee
• work with paraprofessionals to determine suitable compensation if circumstances necessitate additional hours

PART 8. COLLABORATION AND COMMUNICATION

8.1 Collaboration

Undergraduate Research Programs (URP) personnel must collaborate and consult with institutional leaders, faculty, individuals, and departments essential to the success of the program.

URP may collaborate with such offices as research and sponsored programs, provosts, academic deans, department chairs, academic advisors, honors programs, scholarship/fellowship advisors, faculty professional development coordinators, career services, student affairs, and offices that work with underrepresented populations.

URP must collaborate with individuals, groups, communities, and organizations to
• establish, maintain, and promote understanding and effective relations
• garner support and resources
• meet the needs of students, designated clients, and other constituents
• achieve program and student outcomes
• engage diverse populations to enrich the educational environment
• disseminate information about programs and services
• solve problems pertinent to the student population, designated clients, or the organization

URP must establish relationships to sustain existing programs and establish new opportunities that increase the diversity of options for students as well as promote and support diverse student participation.

URP must establish relationships that suggest possible opportunities or present and encourage discussions about student research.

URP must refer students, designated clients, and other constituents to appropriate resources when assistance is needed beyond the functional area's scope.

8.2 Communication

URP must provide relevant information, services, and resources that explain its mission and goals.

URP must develop and implement strategies for outreach and promotion.

URP promotional and descriptive information must be accurate and free of deception and misrepresentation.

8.3 Procedures and Guidelines

URP must have and follow procedures and guidelines consistent with institutional policy for
• communicating with the media
• distributing information through print, broadcast, and online sources
• the use of social media
• contracting with external organizations for delivery of programs and services
• developing relationships with donors
• dissemination of relevant information in a timely manner to all constituents

Guiding Principle: Ethical Considerations

PART 9. ETHICS, LAW, AND POLICY

9.1 Ethical Statements

Undergraduate Research Programs (URP) must review and adopt appropriate standards of ethical practice including those of applicable professional associations.

URP must have clearly defined and documented ethical statements addressing
• conflicts of interest, or appearance thereof, by personnel in the performance of their work
• management of institutional funds
• acceptance, in gratis, of cash or merchandise in accordance with institutional advancement reporting policies
• solicitation of gifts, in accordance with institutional advancement reporting policies
• research and assessment with human participants or animal subjects
• confidentiality of research and assessment data
• personnel, student, and other designated clients’ rights and responsibilities
• disclosure of information in student, personnel, and other designated clients’ records

9.2 Ethical Practice

URP personnel must employ ethical decision making in the performance of their duties.

URP personnel must recognize and avoid conflicts of interest that could adversely influence their judgment or objectivity and, when unavoidable, recuse themselves from the situation.

URP personnel must be honest, objective, and impartial in their interactions.

URP must demonstrate responsibility for sound and ethical assessment, research, evaluation, and program review.

URP must give specific instruction in policies and procedures that guard against potential harm to subjects of research and they must have mechanisms in place to ensure that all those involved follow those policies and procedures.

URP must identify and work closely with any offices that coordinate research to ensure that URP research activities meet all ethical standards.

URP must encourage and provide a forum for personnel to address and report unethical behavior.

URP must address issues surrounding scholarly integrity.

URP personnel must acknowledge contributions meriting authorship or co-authorship based on disciplinary guidelines and practices.

URP personnel must perform duties within the scope of their position, training, expertise, and competence.

URP personnel must make referrals when issues presented exceed the scope of their position.

9.3 Legal Obligations and Responsibilities

URP must comply with laws, regulations, policies, and procedures that relate to its respective responsibilities and that pose legal obligations, limitations, risks, and liabilities for the institution as a whole.

In accordance with governmental laws, institutional policy, and standards of good professional practice, URP personnel who are concerned about students’ well-being must ensure that they are referred to appropriate resources.
URP must have a process for accessing legal advice needed for personnel to carry out their assigned responsibilities.

URP must not discriminate based upon institutional policies, codes, or governmental laws.

URP must purchase or obtain permission to use copyrighted materials and instruments. References to copyrighted materials and instruments must include appropriate citations.

9.4 Policies and Procedures

URP must have written policies and procedures on operations, transactions, or tasks that have legal implications.

URP written policies and procedures on intellectual property must be consistent with institutional policy.

URP must have and follow a timeline for reviewing policies and procedures. The creation and revision of policies and procedures must be informed by available evidence, and policies and procedures that inform the management of higher education.

URP must have policies and procedures consistent with institutional policy for responding to threats, emergencies, and crisis situations.

9.5 Communication of Ethical and Legal Obligations

URP must educate new personnel to relevant ethical standards, statements of ethical practice, and related institutional policies and procedures.

URP must inform its users of ethical and legal obligations and limitations emanating from codes and laws or from licensure requirements.

URP must ensure students are made aware of discipline- and publication-specific authorship policies and ethical standards. Students must be provided resources to identify those relevant to their research and its responsible conduct.

URP personnel must provide students, designated clients, and constituents with information about student privacy rights and personnel’s disclosure obligations.

URP must create ongoing opportunities to explore and examine basic ethical beliefs important to the functional area.

URP must inform personnel about internal and external governance organizations that affect the functional area.

URP must inform personnel about professional liability insurance options and refer them to external sources if the institution does not provide coverage.

9.6 Addressing Harassment and Hostile Environments

URP personnel must neither participate in nor condone any form of harassment or activity that demeans persons or creates an intimidating, hostile, or offensive environment.
URP must adhere to institutional policies and procedures regarding sexual misconduct, harassment, and workplace violence.

Guiding Principle: Learning-Conducive Structures, Resources, and Systems

PART 10. FINANCIAL RESOURCES

10.1 Funding

Undergraduate Research Programs (URP) must have the funding that is necessary to accomplish its mission and goals.

URP must determine with administrative leadership what funding is necessary.

URP funding must include financial support and incentives for participation by faculty, staff, and students.

Financial incentives for faculty and staff may include stipends, travel and research resources, and additional consideration for merit pay.

Financial incentives for students may include travel and research funding, stipends, and reduced fees for research courses.

URP should seek funding from internal and external sources to increase undergraduate research activities that involve a wide range of students and disciplines.

10.2 Financial Planning

In establishing and prioritizing funding resources, URP must conduct comprehensive analyses to determine

- unmet needs of the unit
- relevant expenditures
- external and internal resources
- impact on students and the institution

URP must use the budget as a planning tool to reflect commitment to the mission and goals of the functional area and of the institution.

URP financial reports must provide an accurate financial overview of the organization and provide clear, understandable, and timely data upon which personnel can plan and make informed decisions.

10.3 Financial Management

URP must manage funds in accordance with established governmental laws and institutional policies, procedures, and guidelines.

URP must demonstrate responsible stewardship and use of fiscal resources.
URP must have procedures and guidelines consistent with institutional policy for applying to and managing funds from external resources.

URP must be provided with the institutional and financial resources to assist with professional development of personnel.

URP procurement procedures must
- be consistent with institutional policies
- ensure that purchases comply with laws and codes for usability and access
- ensure that the institution receives value for the funds spent
- consider information available for comparing the ethical and environmental impact of products and services purchased

PART 11. TECHNOLOGY

11.1 Systems Management

Undergraduate Research Programs (URP) must have current technology to support the achievement of its mission and goals.

URP must incorporate accessibility features into technology-based programs and services.

URP must ensure that personnel and constituents have access to training and support for technology use.

URP must back up data on a cycle established in partnership with the institution's information technology department.

URP must implement a replacement plan and cycle for all technology with attention to sustainability.

11.2 User Engagement

URP must use technology to enhance the delivery of programs and services for all constituents.

URP must ensure that technology addresses constituent needs.

URP must employ technologies that facilitate user interaction.

URP must provide secure remote access.

11.3 Compliance and Information Security

URP must have policies on the appropriate use of technology that are clear and easily accessible.

URP must comply with governmental codes and laws and with institutional technology policies and procedures.

URP must provide a secure platform when conducting financial transactions, in accordance with industry best practices.
11.4 Communication

URP must have updated websites that provide information to all constituents in accessible formats.

URP must use technology that allows users to communicate sensitive information in a secure format.

URP must evaluate relevant social media platforms and techniques for communication, and implement those that best meet constituent needs.

URP must evaluate multiple modes of communication including, but not limited to, phone, text, and web chat.

PART 12. FACILITIES AND INFRASTRUCTURE

12.1 Design of Facilities

Undergraduate Research Programs (URP) facilities must be located in suitable spaces designed to support the functional area’s mission and goals.

URP facilities must be intentionally designed to engage various constituents, promote learning, and provide accessible and safe spaces.

URP facilities must be designed to protect the security and privacy of records and ensure the confidentiality of sensitive information and conversations.

URP must incorporate universal design principles.

URP facilities must be designed and constructed to be energy-efficient and sustainable.

12.2 Work Space

URP personnel must have equipped and well-maintained workspaces designed to support their work and responsibilities.

URP personnel must be able to safeguard the privacy of their work.

12.3 Equipment Acquisition

When acquiring capital equipment, URP must take into account expenses related to regular maintenance and life cycle costs.

URP must incorporate sustainable practices when purchasing equipment.

12.4 Facilities and Equipment Use

URP facilities and equipment must be inspected on an established cycle and be in compliance with codes, laws, and established practices for accessibility, health, safety, and security.
URP must promptly report broken, malfunctioning, defective, unusable, or faulty facilities and equipment to the entity responsible for maintenance.

URP must develop sustainable practices for facilities use.

URP must assess the effectiveness of its facilities to ensure they are meeting facilities and equipment goals.

URP personnel must advocate for appropriate, consistent, and fair assignment of facilities and equipment.

*General Standards revised in 2018; URP content developed/revised in 2007 & 2016*

*The URP Standards and Guidelines should be considered in conjunction with the URP Contextual Statement, CAS Glossary of Terms, and CAS Guiding Principles.*