



## Council for the Advancement of Standards in Higher Education

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We are pleased you are interested 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 this standard 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 CAS statement in the design and assessment of your programs and for your staff training and development. *This statement may not be duplicated for other purposes without permission from CAS.*

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

This standard has a Self Assessment Guide (SAG) available for purchase from [www.cas.edu](http://www.cas.edu) for use in program evaluation.

### CAS MISSION STATEMENT

The mission of the Council for the Advancement of Standards in Higher Education (CAS) is to promote the improvement of programs and services to enhance the quality of student learning and development. CAS is a consortium of professional associations who work collaboratively to develop and promulgate standards and guidelines and to encourage self-assessment.

### CAS STANDARDS AND GUIDELINES

Each CAS standard 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 THIRTY 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 achievement 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 43 functional areas, consistent with institutional missions. Individuals and institutions from nearly 40 CAS member organizations comprise a professional constituency of over 100,000 professionals.

### DISCLAIMER

The standards and guidelines published in “The Book of 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, are free to make accurate representations to the effect that the designated program or service meets the CAS Standards.

Direct your questions to the CAS Executive Office, One Dupont Circle NW Suite 300 Washington, DC 20036-1188,  
202-862-1400, (email contact: Marybeth Drechsler Sharp, Interim Executive Director, [www.cas.edu](http://www.cas.edu))

# The Role of Undergraduate Research Programs

## CAS Standards Contextual Statement

Colleges and universities have long recognized the value of student scholarship as the culminating hallmark of an engaged and successful undergraduate career. Research experiences and creative practice projects—conducted in collaboration with and/or under the mentorship of concerned and dedicated faculty—have the potential to be transformative, moving our undergraduates to deeper understanding of and engagement with the world around them. Undergraduate research and creative practice also provide an important measure of cumulative student learning. (AAC&U, 2007)

This position of the Association of American Colleges and Universities crystallizes the value of undergraduate research programs. All too often these activities are loosely connected to the overall academic program and are implemented as boutique opportunities. The CAS undergraduate research program standards are designed to integrate undergraduate research across the institution and implement a vision of undergraduate education that offers students the opportunity to emphasize their identities as learners and scholars.

Although the origins of the undergraduate research concept are not clear, it is likely that credit for this phenomenon of American higher education resides in the undergraduate liberal arts college. In 1958 the US was awakened to deficiencies in science education by the launching of Sputnik by the USSR. In the early 1960s the National Science Foundation created its Undergraduate Research Program to encourage faculty-student science research. Credit needs to be given to two organizations that have been instrumental in promoting undergraduate research.

The Council on Undergraduate Research (CUR), founded in 1978, is a national organization of individual and institutional members representing over 900 colleges and universities. CUR and its affiliated colleges, universities, and individuals share a focus on providing undergraduate research opportunities for faculty and students at predominantly undergraduate institutions. CUR believes that faculty members enhance their teaching and contribution to society by remaining active in research and by involving undergraduates in research. CUR's leadership works with agencies and foundations to enhance research opportunities for faculty and students. CUR provides support for faculty development (<http://www.cur.org>).

The National Conferences on Undergraduate Research (NCUR), established in 1987, is dedicated to promoting undergraduate research, scholarship, and creative activity in all fields of study by sponsoring an annual conference for students. Unlike meetings of academic professional organizations, this gathering of young scholars welcomes presenters from all institutions of higher learning and from all corners of the academic curriculum. Through this annual conference, NCUR creates a unique environment for the celebration and promotion of undergraduate student achievement, provides models of exemplary research and scholarship, and helps to improve the state of undergraduate education (<http://www.ncur.org>). The National Collegiate Honors Council (NCHC) has contributed to the undergraduate research movement through its influence on honors programs and colleges. Although there is not a standard requirement for research projects and theses, most programs offer that track for interested students.

There is a rich tradition of highly developed college and university undergraduate research programs, awards and grants, symposia, workshops, research presentations, poster sessions, and journals (print and online). Student organizations, particularly honor societies, also offer regional and national conferences that feature oral reports, poster sessions, and awards. Mercyhurst College maintains a directory of undergraduate journals and conferences (<http://upd.mercyhurst.edu>). About 30 institutions have formed the Undergraduate Research Community for the Human Sciences (URC) that seeks to develop a dynamic and pervasive culture of the human sciences for developing the next generation of scholars ([http://www.kon.org/urc/undergrad\\_research.html](http://www.kon.org/urc/undergrad_research.html)). All of these initiatives advance undergraduate learning and development.

The undergraduate research standards and guidelines provide a basis for institutional self-assessment and program development. In addition, because a comprehensive assessment of student outcomes has not had a high priority in undergraduate research, the student learning and development outcomes can be instrumental in raising the bar for assessment.

### **References, Readings, and Resources**

AAC&U. (2007). The student as scholar: Undergraduate research and creative practice. [www.aacu.org](http://www.aacu.org).

*Undergraduate Journals & Conferences Directory*. <http://upd.mercyhurst.edu>

Council on Undergraduate Research. <http://www.cur.org>

Undergraduate Research Journal for the Human Sciences, <http://www.kon.org/urc/undergrad-research.html>

National Conferences on Undergraduate Research. <http://www.ncur.org>

### **Contextual Statement Contributor**

Dorothy I. Mitstifer, ACHS

# **UNDERGRADUATE RESEARCH PROGRAMS**

## *CAS Standards and Guidelines*

### **Part 1. MISSION**

**The primary mission of Undergraduate Research Programs (URP) is to engage students in investigative and creative activity to experience firsthand the processes of scholarly exploration and discovery. Undergraduate research is an inquiry or investigation conducted by an undergraduate student to examine, create, and share new knowledge in the context of disciplinary and interdisciplinary traditions.**

**URP must develop, disseminate, implement, and regularly review their missions. The mission must be consistent with the mission of the institution and with professional standards. The mission must be appropriate for the institution's student populations and community settings. Mission statements must reference student learning and development.**

### **Part 2. PROGRAM**

**The formal education of students, consisting of the curriculum and the co-curriculum, must promote student learning and development outcomes that are purposeful, contribute to students' realization of their potential, and prepare students for satisfying and productive lives.**

**Undergraduate Research Programs (URP) must collaborate with colleagues and departments across the institution to promote student learning and development, persistence, and success.**

**Consistent with the institutional mission, URP must identify relevant and desirable student learning and development outcomes from among the six domains and related dimensions:**

**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**

[LD Outcomes: See *The Council for the Advancement of Standards Learning and Developmental Outcomes* statement for examples of outcomes related to these domains and dimensions.]

**URP must**

- **assess relevant and desirable student learning and development**
- **provide evidence of impact on outcomes**
- **articulate contributions to or support of student learning and development in the domains not specifically assessed**
- **articulate contributions to or support of student persistence and success**
- **use evidence gathered through this process to create strategies for improvement of programs and services**

**URP must be**

- **intentionally designed**
- **guided by theories and knowledge of learning and development**
- **integrated into the life of the institution**
- **reflective of developmental and demographic profiles of the student population**
- **responsive to needs of individuals, populations with distinct needs, and relevant constituencies**
- **delivered using multiple formats, strategies, and contexts**

**Where institutions provide distance education, URP must assist distance learners to achieve their educational goals by providing access to information about programs and services, to staff members who can address questions and concerns, and to counseling, advising, or other forms of assistance.**

**URP must**

- **create an active learning environment supportive of scholarship and research**

- **integrate research activities with professional and liberal education**
- **create an infrastructure to recognize and reward research excellence and successful completion of research**
- **create a collegial climate in which to conduct research**
- **allow students to define their interests within the context of the research activity**
- **promote intellectual rigor and student intellectual growth and development**
- **require an appropriate report of the student's completed work**
- **provide opportunities for research dissemination**

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

**URP must establish mechanisms for individual or small-group mentoring on a regular basis that is based on the intellectual readiness of students. Mentoring must address research design; appropriate forms of data collection, verification, and analysis; information retrieval; oversight of research on human subjects; and appropriate forms of written and oral scholarly communication.**

**URP must ensure that students are made aware that disciplines and publications have specific authorship policies and ethical standards and are provided resources to identify those relevant to their research.**

URP should provide opportunities for undergraduate students to present their research to peers, faculty members, professionals, and appropriate others and to participate in undergraduate and disciplinary research conferences. These may include institutional, local, regional, national, and international meetings.

URP should offer opportunities for academic credit for research activity where applicable.

URP should offer a range of research experiences appropriate for students at various developmental levels, abilities, and with various life circumstances.

Because a particular research activity may not be appropriate for every student, a range of options should be provided so that all students may find appropriate opportunities. Examples of such opportunities may include first-year experiences, living-learning programs, honors programs, graduation requirements, general education courses, major requirements, capstone courses, and community-based research. These illustrative examples are not mutually exclusive. An undergraduate research activity may involve two or more of these. Activities may be initiated by students, faculty members, programs, or institutions.

### **Part 3. ORGANIZATION AND LEADERSHIP**

**To achieve student and program outcomes, Undergraduate Research Programs (URP) must be structured purposefully and organized effectively. URP must have**

- **clearly stated goals**
- **current and accessible policies and procedures**
- **written performance expectations for employees**

- **functional work flow graphics or organizational charts demonstrating clear channels of authority**

**Leaders with organizational authority for URP must provide strategic planning, supervision, and management; advance the organization; and maintain integrity through the following functions:**

### **Strategic Planning**

- **articulate a vision and mission that drive short- and long-term planning**
- **set goals and objectives based on the needs of the population served and desired student learning or development and program outcomes**
- **facilitate continuous development, implementation, and assessment of goal attainment congruent with institutional mission and strategic plans**
- **promote environments that provide meaningful opportunities for student learning, development, and engagement**
- **develop and continuously improve programs and services in response to the changing needs of students served and evolving institutional priorities**
- **intentionally include diverse perspectives to inform decision making**

### **Supervising**

- **manage human resource processes including recruitment, selection, development, supervision, performance planning, evaluation, recognition, and reward**
- **influence others to contribute to the effectiveness and success of the unit**
- **empower professional, support, and student staff to accept leadership opportunities**
- **offer appropriate feedback to colleagues and students on skills needed to become more effective leaders**
- **encourage and support professional development, collaboration with colleagues and departments across the institution, and scholarly contribution to the profession**

### **Managing**

- **identify and address individual, organizational, and environmental conditions that foster or inhibit mission achievement**
- **plan, allocate, and monitor the use of fiscal, physical, human, intellectual, and technological resources**
- **use current and valid evidence to inform decisions**
- **incorporate sustainability practices in the management and design of programs, services, and facilities**
- **understand appropriate technologies and integrate them into programs and services**
- **be knowledgeable about codes and laws relevant to programs and services and ensure that staff members understand their responsibilities through appropriate training**
- **assess potential risks and take action to mitigate them**

### **Advancing the Organization**

- **communicate effectively in writing, speaking, and electronic venues**
- **advocate for programs and services**
- **advocate for representation in strategic planning initiatives at appropriate divisional and institutional levels**
- **initiate collaborative interactions with internal and external stakeholders who have legitimate concerns about and interests in the functional area**
- **facilitate processes to reach consensus where wide support is needed**
- **inform other areas within the institution about issues affecting practice**

#### **Maintaining Integrity**

- **model ethical behavior and institutional citizenship**
- **share data used to inform key decisions in transparent and accessible ways**
- **monitor media used for distributing information about programs and services to ensure the content is current, accurate, appropriately referenced, and accessible**

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

#### **Part 4. HUMAN RESOURCES**

**Undergraduate Research Programs (URP) must be staffed adequately by individuals qualified to accomplish mission and goals.**

**Within institutional guidelines, URP must**

- **establish procedures for staff recruitment and selection, training, performance planning, and evaluation**
- **set expectations for supervision and performance**
- **assess the performance of employees individually and as a team**
- **provide access to continuing and advanced education and appropriate professional development opportunities to improve the leadership ability, competence, and skills of all employees.**

URP should offer training for individuals who mentor undergraduate researchers about research policies and procedures, URP goals and opportunities, and the diversity of student learning styles.

**URP must maintain position descriptions for all staff members.**

**To create a diverse staff, URP must institute recruitment and hiring strategies that encourage individuals from under-represented populations to apply for positions.**

**URP must develop promotion practices that are fair, inclusive, proactive, and non-discriminatory.**

**To further the recruitment and retention of staff, URP must consider work life initiatives, such as compressed work schedules, flextime, job sharing, remote work, or telework.**

**URP professional staff members must hold an earned graduate or professional degree in a field relevant to the position they hold or must possess an appropriate combination of educational credentials and related work experience.**

The professional development of staff and faculty members 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 students involved in research experiences
- use of active learning strategies
- education and support of students to apply learning from research experiences to future endeavors

**URP professional staff members must engage in continuing professional development activities to keep abreast of the research, theories, legislation, policies, and developments that affect their programs and services.**

**URP must have technical and support staff members adequate to accomplish their mission. All members of the staff must be technologically proficient and qualified to perform their job functions, be knowledgeable about ethical and legal uses of technology, and have access to training and resources to support the performance of their assigned responsibilities.**

**Degree- or credential-seeking interns or graduate assistants must be qualified by enrollment in an appropriate field of study and by relevant experience. These individuals must be trained and supervised adequately by professional staff members holding educational credentials and related work experience appropriate for supervision. Supervisors must be cognizant of the roles of interns and graduate assistants as both student and employee and closely adhere to all parameters of their job descriptions, work hours, and schedules. Supervisors and the interns or graduate assistants must agree to compensatory time or other appropriate compensation if circumstances necessitate additional hours.**

**Student employees and volunteers must be carefully selected, trained, supervised, and evaluated. They must be educated on how and when to refer those in need of additional assistance to qualified staff members and must have access to a supervisor for assistance in making these judgments. Student employees and volunteers must be provided clear job descriptions, pre-service training based on assessed needs, and continuing development.**

**All URP staff members, including student employees and volunteers, must receive specific training on institutional policies pertaining to functions or activities they**

**support and to privacy and confidentiality policies and laws regarding access to student records and other sensitive institutional information.**

**All URP staff members must receive training on policies and procedures related to the use of technology to store or access student records and institutional data.**

**URP must ensure that staff members are knowledgeable about and trained in emergency procedures, crisis response, and prevention efforts. Prevention efforts must address identification of threatening conduct or behavior of students, faculty and staff members, and others and must incorporate a system for responding and reporting.**

**URP must ensure that staff members are knowledgeable of and trained in safety and emergency procedures for securing and vacating facilities.**

## **Part 5. ETHICS**

**Undergraduate Research Programs (URP) must review relevant professional ethical standards and must adopt or develop and implement appropriate statements of ethical practice.**

**URP must publish and adhere to statements of ethical practice and ensure their periodic review by relevant constituencies.**

**URP must orient new staff members to relevant ethical standards and statements of ethical practice and related institutional policies.**

**Statements of ethical standards must specify that staff members respect privacy and maintain confidentiality in all communications and records to the extent that such communications and records are protected under relevant privacy laws.**

**Statements of ethical standards must specify limits on disclosure of information contained in students' educational records as well as requirements to disclose to appropriate authorities.**

**Statements of ethical standards must address personal and economic conflicts of interest, or appearance thereof, by staff members in the performance of their work.**

**Statements of ethical standards must reflect the responsibility of staff members to be fair, objective, and impartial in their interactions with others.**

**Statements of ethical standards must reference management of institutional funds.**

**Statements of ethical standards must reference appropriate behavior regarding research and assessment with human participants, confidentiality of research and assessment data, and students' rights and responsibilities.**

**These policies and procedures must guard against potential physical and psychological harm to human subjects of research.**

**Statements of ethical standards must include the expectation that URP staff members confront and hold accountable other staff members who exhibit unethical behavior.**

**Statements of ethical standards must address issues surrounding scholarly integrity.**

**As appropriate, URP staff members must inform users of programs and services of ethical obligations and limitations emanating from codes and laws or from licensure requirements.**

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

**URP staff members must perform their duties within the limits of their position, training, expertise, and competence.**

**When these limits are exceeded, individuals in need of further assistance must be referred to persons possessing appropriate qualifications.**

**Promotional and descriptive information must be accurate and free of deception.**

**URP must adhere to institutional policies regarding ethical and legal use of software and technology.**

**URP staff members must acknowledge authorship based on disciplinary guidelines and practices.**

## **Part 6. LAW, POLICY, AND GOVERNANCE**

**Undergraduate Research Programs (URP) must be in compliance with laws, regulations, and policies that relate to their respective responsibilities and that pose legal obligations, limitations, risks, and liabilities for the institution as a whole. Examples include constitutional, statutory, regulatory, and case law; relevant law and orders emanating from codes and laws; and the institution's policies.**

**URP must inform staff members, appropriate officials, and users of programs and services about existing and changing legal obligations, risks and liabilities, and limitations.**

**URP must have written policies on all relevant operations, transactions, or tasks that have legal implications.**

**URP must regularly review policies. The revision and creation of policies must be informed by best practices, available evidence, and policy issues in higher education.**

**URP staff members must use reasonable and informed practices to limit the liability exposure of the institution and its officers, employees, and agents. URP staff members must be informed about institutional policies regarding risk management, personal liability, and related insurance coverage options and must be referred to external sources if the institution does not provide coverage.**

**The institution must provide access to legal advice for staff members as needed to carry out assigned responsibilities.**

**URP must have procedures and guidelines consistent with institutional policy for responding to threats, emergencies, and crisis situations. Systems and procedures must be in place to disseminate timely and accurate information to students, other members of the institutional community, and appropriate external organizations during emergency situations.**

**URP staff members 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 obtain permission to use copyrighted materials and instruments. URP must purchase the materials and instruments from legally compliant sources or seek alternative permission from the publisher or owner. References to copyrighted materials and instruments must include appropriate citations.**

**URP staff members must be knowledgeable about internal and external governance systems that affect programs and services.**

## **Part 7. DIVERSITY, EQUITY, AND ACCESS**

**Within the context of each institution's unique mission and in accordance with institutional policies and all applicable codes and laws, Undergraduate Research Programs (URP) must create and maintain educational and work environments that are**

- welcoming, accessible, and inclusive to persons of diverse backgrounds**
- equitable and non-discriminatory**
- free from harassment**

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

**URP must**

- **advocate for greater sensitivity to multicultural and social justice concerns by the institution and its personnel**
- **modify or remove policies, practices, facilities, structures, systems, and technologies that limit access, discriminate, or produce inequities**
- **include diversity, equity, and access initiatives within their strategic plans**
- **foster communication that deepens understanding of identity, culture, self-expression, and heritage**
- **promote respect about commonalities and differences among people within their historical and cultural contexts**
- **address the characteristics and needs of a diverse population when establishing and implementing culturally relevant and inclusive programs, services, policies, procedures, and practices**
- **provide staff members with access to multicultural training and hold staff members accountable for integrating the training into their work**
- **respond to the needs of all students and other populations served when establishing hours of operation and developing methods of delivering programs, services, and resources**
- **ensure physical, program, and resource access for persons with disabilities**
- **recognize the needs of distance learning students by providing appropriate and accessible services and resources or by assisting them in gaining access to other appropriate services and resources in their geographic region**

## **Part 8. INSTITUTIONAL AND EXTERNAL RELATIONS**

**Undergraduate Research Programs (URP) must reach out to relevant individuals, groups, communities, and organizations internal and external to the institution to**

- **establish, maintain, and promote understanding and effective relations with those that have a significant interest in or potential effect on the students or other constituents served by the programs and services**
- **garner support and resources for programs and services as defined by the mission statement**
- **disseminate information about the programs and services**
- **collaborate, where appropriate, to assist in offering or improving programs and services to meet the needs of students and other constituents and to achieve program and student outcomes**
- **engage diverse individuals, groups, communities, and organizations to enrich the educational environment and experiences of students and other constituents**

**URP must have procedures and guidelines consistent with institutional policy for**

- **communicating with the media**
- **contracting with external organizations for delivery of programs and services**
- **cultivating, soliciting, and managing gifts**
- **applying to and managing funds from grants**

## **Part 9. FINANCIAL RESOURCES**

**Undergraduate Research Programs (URP) must have funding to accomplish the mission and goals. In establishing funding priorities and making significant changes, a comprehensive analysis must be conducted to determine the following elements: unmet needs of the unit, relevant expenditures, external and internal resources, and impact on students and the institution.**

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

**URP must demonstrate efficient and effective use and responsible stewardship of fiscal resources consistent with institutional protocols.**

## **Part 10. TECHNOLOGY**

**Undergraduate Research Programs (URP) must have adequate technology to support the achievement of their mission and goals. The technology and its use must comply with institutional policies and procedures and be evaluated for compliance with relevant codes and laws.**

**URP must use current technology to provide updated information regarding mission, location, staffing, programs, services, and official contacts to students and designated clients.**

**URP must explore the use of technology to enhance delivery of programs and services, especially for students at a distance or external constituencies.**

**When technology is used to facilitate student learning and development, URP must select technology that reflects intended outcomes.**

**URP must**

- **maintain policies and procedures that address the security, confidentiality, and backup of data, as well as compliance with privacy laws**
- **have clearly articulated plans in place for protecting confidentiality and security of information when using Internet-based technologies**
- **develop plans for replacing and updating existing hardware and software as well as plans for integrating new technically-based or supported programs, including systems developed internally by the institution, systems available through professional associations, or private vendor-based systems**

**Technology, as well as workstations or computer labs maintained by URP for student use, must be accessible to all designated clients and must meet established technology standards for delivery to persons with disabilities.**

**When providing student access to technology, URP must**

- **have policies on the use of technology that are clear, easy to understand, and available to all students**
- **provide assistance, information, or referral to appropriate support services to those needing help accessing or using technology**

- provide instruction or training on how to use the technology
- inform students on the legal and ethical implications of misuse as it pertains to intellectual property, harassment, privacy, and social networks

**Student violations of technology policies must follow established institutional student disciplinary procedures.**

**Students who experience negative emotional or psychological consequences from the use of technology must be referred to support services provided by the institution.**

## **Part 11. FACILITIES AND EQUIPMENT**

**Undergraduate Research Programs (URP) must have adequate, accessible, and suitably located facilities and equipment to support the mission and goals. If acquiring capital equipment as defined by the institution, URP must take into account expenses related to regular maintenance and life cycle costs. Facilities and equipment must be evaluated on an established cycle, including consideration of sustainability, and be in compliance with codes and laws to provide for access, health, safety, and security.**

**URP staff members must have workspace that is well equipped, adequate in size, and designed to support their work and responsibilities. For conversations requiring privacy, staff members must have access to a private space.**

**URP staff members who share workspace must be able to secure their own work.**

**The design of the facilities must guarantee the security and privacy of records and ensure the confidentiality of sensitive information.**

**The location and layout of the facilities must be sensitive to the needs of persons with disabilities as well as the needs of other constituencies.**

## **Part 12. ASSESSMENT AND EVALUATION**

**Undergraduate Research Programs (URP) must have a clearly articulated assessment plan to document achievement of stated goals and learning outcomes, demonstrate accountability, provide evidence of improvement, and describe resulting changes in programs and services.**

**URP must have adequate fiscal, human, professional development, and technological resources to develop and implement assessment plans.**

**Assessments must include direct and indirect evaluation and use qualitative and quantitative methodologies and existing evidence, as appropriate, to determine whether and to what degree the stated mission, goals, and intended outcomes are being met as effectively and efficiently as possible. The process must employ sufficient and sound measures to ensure comprehensiveness. Data collected must**

**include responses from students and other constituencies, and aggregated results must be shared with those groups. Results of assessments must be shared appropriately with multiple constituents.**

**Results of assessments and evaluations must be used to identify needs and interests in revising and improving programs and services, recognizing staff performance, maximizing resource efficiency and effectiveness, improving student achievement of learning and development outcomes, and improving student persistence and success. Changes resulting from the use of assessments and evaluation must be shared with stakeholders.**

*General Standards revised in 2011;  
URP content developed in 2007*