



## Characteristics of Excellence in Undergraduate Research (COEUR) Executive Summary

*Characteristics of Excellence in Undergraduate Research (COEUR)* is a summary of best practices that support and sustain highly effective undergraduate research environments. This document is organized in sections that correspond to various functions or units of a typical college or university campus. In CUR's experience, successful programs exhibit many of the characteristics enumerated in this document. Further, many of the characteristics described in this document overlap and are important elements in an integrated, synergistic approach to enhancing undergraduate research.

### **Campus mission and culture**

- Institutional commitment
- Scholarly faculty
- Faculty commitment
- Broad disciplinary participation
- Accessible opportunities for undergraduates
- Integration with other engaging and high-impact opportunities

### **Administrative support**

- Internal budgetary support
- Startup funding
- Faculty load credit for supervising undergraduate research
- Reassigned time for research-related tasks
- UR administrative support
  - UR program office
  - Space
  - Infrastructure Support
- Travel and other student funding
- Research grants office

### **Research infrastructure**

- Space
- Instrumentation and equipment
- Library resources
- Computational resources
- Other research resources
- Research oversight structures
- Support, administrative, and technical staff

### **Professional development opportunities**

- Research leaves
- Research training opportunities
- Non-research-related professional development
- Mentorship training
  - Faculty
  - Graduate students and postdoctoral fellows

### **Recognition**

- Promotion and tenure guidelines
- Salary review
- Campus awards
- Prominent publicity for research accomplishments

### **External funding**

- Faculty research funding
- Institutional funding for research

### **Dissemination**

- Peer-reviewed publication, exhibition, or performance
- Presentation at professional meetings
- Student research conferences
- On-campus symposia

### **Student-centered issues**

- Opportunities for early and sustained involvement
- Establishing and communicating expectations
- Developmentally appropriate expectations and intellectual ownership
- Community of student scholars
- Peer mentoring/teamwork opportunities
- Expanding and integrating student research opportunities with other engaging experiences
- Faculty mentor availability

### **Curriculum**

- Research-supportive curricula
  - Content
  - Integration of teaching and research
  - Course scheduling and managing faculty teaching loads
- Additional training opportunities and workshops
  - Training in responsible conduct of research
  - Professional skills workshops
- Student course credit for research
- Requiring undergraduate research

### **Summer research program**

- Research-supportive teaching calendar
- Faculty compensation
- Student compensation
- Student housing and access to facilities and student services
- Student programming
- Summer research symposia
- Coordination among multiple programs
- Hosting visiting students

### **Assessment activities**

- Assessment of student learning
- Program assessment and evaluation

### **Strategic Planning**