ABSTRACT

The University of North Alabama has undertaken a five-year campus-wide project to infuse undergraduate research into every academic program through a discipline-specific and departmentally-determined, three-course sequence. The development of this program, Building Success through Discovery: Imagine, Investigate, Communicate, focuses on academic research engaging students in the specific reading, data and information collection, analysis, and written or oral presentation skills required to successfully participate in problem-solving within any given discipline or career.

UNA’s Building Success through Discovery seeks to encourage students to ask questions, think creatively, and discover through research thereby enhancing the opportunity for success in their careers. Participation in academic research enhances students’ ability to imagine what they would like to learn, investigate the question to find answers or address issues, and then communicate their findings in a professional manner for others to understand.

Program Goals

- Engage students in academic research to increase their content knowledge
- Increase students’ ability to determine when an issue or question exists
- Teach students to succinctly state a problem
- Increase students’ ability to assess credible information related to the problem
- Develop students’ skills for solving a problem and critically assessing the situation
- Enhance students’ skills in communicating findings in writing, presenting, and/or through a discipline-appropriate medium

Why Undergraduate Research at UNA?

- Constituent Survey - Top Responses to “Knowledge and Skills Needed by UNA Students” (2009) - Faculty, Staff, Administrators, Alumni, Employers, Undergraduate and Graduate Students (926 respondents)
  - Critical Thinking, Analysis, Decision-Making (44.38%)
  - Top Response for All Categories of Respondents
  - Application of Technology (12.53%)
  - Oral Communication/Public Speaking/Presentation Skills (7.99%)
  - Reading with Understanding (6.92%)
  - Written Communication (5.94%)
  - Ability of Locate and Evaluate Information (4.32%)
- Supports the achievement of current University Core Competencies
- Benefits of academic research skills and knowledge support development of the skills listed above as beneficial to UNA students
- When students invest time in research pertinent to them, or are involved in assignments that have a clear goal toward professional development and future opportunity, they will learn more deeply and be less likely to plagiarize

Integration into Academic Degree Programs

- Designed to provide focused instruction and academic application of research knowledge and skills at three levels of a student’s coursework beginning in their freshman/sophomore year
- Progression promotes increased skill and knowledge development as students advance toward senior classes and possibly a senior Capstone project (Capstone suggested not required)
- Three-course sequence determined by departments
  - Selected from existing, required courses
  - Departments may create courses if desired
  - Each designated course must be a pre-requisite for the next
- One research assignment per course; assignment design and implementation is at the discretion of the faculty member and/or department
- All faculty members must assess their assignment using the common rubric
- Encourages faculty members to mentor students and include them in their own research

Examples of Departmental Course Sequencing

- Business Administration (all options)
  - MG 382W – Managerial Communications
  - MG 420 – Operations Management
  - MG 498 – Strategic Management
- Computer Information Systems
  - CIS 236 – Information Systems in Organizations
  - CIS 486 – Data Communications
  - CIS 486 – Projects in Information System
- Traditional Nursing Option
  - NU 200 – Introduction to the Role of the Professional Nurse
  - NU 302 – Community Health Nursing
  - NU 406W – Research in Nursing
- Biology
  - BI 111 Lab – Principles of Biology I
  - BI 200W – Biological Literature
  - BI 305 – Cell Biology
- Foreign Languages
  - FL 700 – Introduction to Languages
  - FL 302 – Cross-Cultural Interactions
  - FL 498 – Senior Seminar
- Music
  - MU 239W – Music in World Cultures
  - MU 345 – History of Music
  - MU 349W – History of Music II
- Elementary Education
  - ECE 309 – Introduction to Elementary Education
  - EED 401 – Evaluation of Teaching and Learning
  - EED 405 – Evaluation and Remediation of Reading Problems
- HPER (Exercise Science Option)
  - HPE 221 – Intro to Health and Physical Education
  - HPE 225 – Nutrition and Health Performance
  - HPE 353 – Physiology of Exercise

Assessment

- Assessment of Student Learning Outcomes (SLOs) in each course resides with the individual faculty members and departments
- Direct assessments at the department level include: Laboratory exercises, exams, data collection projects, research papers, and project evaluations,
- Faculty members will use the rubric designed by QEP Discovery Leadership (Pilot Study) Team for all assignment evaluations
- Common rubric development process included:
  - Leadership Team Members identify criteria, common across disciplines, to use when assessing the four SLOs
  - Leadership Team Members grade assignments in various Level I, II, & III courses using the rubric to test the validity and usability
  - Rubric modified to remove redundant criteria
  - Faculty able to select “bullet-points” that best meet their needs for each assignment
- Faculty members use results to improve student learning in subsequent courses and follow-up courses
- Student scores are reported Program Director for overall program assessment
- Constituency Satisfaction Assessment

Looking Ahead

- Increase presentations by students at professional conferences
- Garner faculty-student externally-funded research projects
- Provide University financial support for students conducting research and/or traveling to conferences
- Provide faculty professional development through the creation of a Center for Innovative Teaching and Learning
- Host a regional undergraduate research conference
- Enhance student and employer satisfaction
- Encourage faculty to conduct research on the scholarship of teaching and learning

University of North Alabama

- A comprehensive regional university located in the northwest corner of Alabama in the city of Florence on the Tennessee River
- 7,016 students (Fall 2012)
  6,092 undergraduate
  924 graduate students
- Female to Male Students: 56% to 42%
- Race and Ethnicity (Undergraduates):
  - White, non-Hispanic: 74.42%
  - Black or African American, non-Hispanic: 13.70%
  - International Students: 3.86%
  - Hispanic: 2.14%
  - Other Races/Ethnicities: 5.86%
- 20:1 Students to Faculty (full-time equivalent ratio)