



## INQUIRY

*The application of concepts and tools to create, verify and communicate new knowledge.*

### **KNOWLEDGE AND SKILLS UC STUDENTS ACHIEVE IN THE AREA OF INQUIRY:**

#### **Associate Degree: *Foundational Skills and Knowledge***

- Comprehend the distinction between observation and inference
- Understand the deliberate strategy of forming and testing hypotheses, and how theories are formed, tested, validated, and accorded provisional acceptance
- Demonstrate the ability to use the scientific method
- Use algebraic and geometric language correctly and efficiently
- Manipulate linear equations and mathematical formulas to solve for appropriate values
- Solve word problems that are related to commonly significant issues and require mathematics-based quantitative analysis

#### **Baccalaureate Degree: *Advanced Skills and Knowledge***

- Apply and integrate foundational mathematical knowledge, skills and processes in a range of real world contexts to develop and deepen in the student the habits of thinking and quantitative reasoning
- Use scientific processes in a variety of contexts
- Incorporates multiple information resources with appropriate citations in discipline-specific research

#### **Graduate Degree**

#### ***Synthesis and Application of Skills and Knowledge at the Professional level***

- Addresses professional, discipline-specific problems and scenarios by using multiple tools and different sources and types of information
- Communicates results in a manner consistent with standards of the profession

