

# Tracking Cougar Curriculum



January 2015

## A Normed Look At Our Students Scientific and Quantitative Reasoning

### General Education Core Objectives

- Critical Thinking
- Communication
- Empirical and Quantitative Skills
- Teamwork
- Personal Responsibility
- Social Responsibility

### Foundational Component Areas (with credit hours)

- American History (6)
- Communication (6)
- Creative Arts (3)
- Government / Political Science (6)
- Language, Philosophy & Culture (3)
- Life and Physical Sciences (6)
- Mathematics (3)
- Social and Behavioral Sciences (3)
- Component Area Option [distributed across the components] (6)

In the second part of the Collegiate Learning Assessment (CLA+) examination, students are asked to answer ten Selected-Response Questions (SRQ) designed to measure scientific and quantitative reasoning. These items require students to apply scientific and quantitative critical-thinking skills, drawing from provided real-life research documents.

While a single test cannot serve as the benchmark for all student learning within higher education, it can provide educators with a frame of reference for determining the status of skill achievement within their institutions, as well as the progress their students have made relative to the development of students at other colleges and universities.

The table below provides summary statistics for the skill category Scientific & Quantitative Reasoning measured in the CLA+ SRQ section. These scores are determined by the number of correct responses and adjusted based on item difficulty.

Mean Scores in the table below reflect the average score received by each class for the skill category. By comparing results in the 25th and 75th columns, you can determine the range in which 50% of students scored.

The effect size is calculated to show the growth change from entering to exiting. An effect size of 0 indicates no difference between entering and exiting students. Positive effect sizes indicate that scores of exiting students are higher than those of entering students, with larger effect sizes corresponding to larger score differences.

### SELECTED-RESPONSE SUBSCORE FOR SCIENTIFIC AND QUANTITATIVE REASONING

### CAB ACTIONS Nov - Dec 2014

**60 Hour Degrees:** All degrees are now 60 SCH except for Dental Hygienist & Respiratory Care, whose exemption requests are pending THECB approval.

**Workforce Gen Ed changes:**  
Deleted - ENGL 2351  
Added - ECON 1301

**Proposed Core changes pending THECB approval:**  
Replaced MATH 2312 with MATH 2412  
Added PHED 1164 & PHED 1304

**Engineering Technology Programs revised:**  
Cisco Systems Computer Networking Technology - added 3 new local need courses for certification update;

Computer-Aided Drafting & Design-Added DRFT 1372; 3 course sequences were reordered:  
DFTG 1333, 1345 & 1371

Electronic Engineering Technology & Semiconductor Manufacturing Technology – Replaced DFTG 1309 with DFTG 1372

**Fine Arts Program Revised:**  
Dance – 11 additions; 6 WECM updates; and deleted DANC 1101 & DANC 1201.

Scientific & Quantitative Reasoning	Mean Score	25 <sup>th</sup> Percentile Score	75 <sup>th</sup> Percentile Score	SRQ Mean Effect Size
Collin Freshmen	489	420	572	
All 2-Yr Freshmen	473	N/A	N/A	
All 4-Yr Freshmen	499	473	519	
Collin Exiting	522	477	593	0.34
All Exiting 2-Yr	503	N/A	N/A	0.32
All Exiting 4-Yr	546	524	567	0.55

NOTE: The selected response section subscores are reported on a scale ranging from approximately 200 to 800, standardized relative to a school's standard deviation.