

CHAPTER FOUR: FOUNDATION FOR LEARNING IN GENERAL EDUCATION

Characteristics of Excellence: Through this chapter Trinity will demonstrate compliance with these standards:

Standard 12: General Education

Standard 11: Educational Offerings

Standard 14: Assessment of Student Learning

Trinity's commitment to the education of women, learning in the liberal arts, integration of liberal learning with professional preparation, and grounding in the values of the Catholic faith and the Sisters of Notre Dame de Namur – the four pillars of Trinity's institutional mission – establish the university's framework for general education. In both the College of Arts & Sciences and the School of Professional Studies, "The institution's curricula are designed so that students acquire and demonstrate college-level proficiency in general education and essential skills, including at least oral and written communication, scientific and quantitative reasoning, critical analysis and reasoning, and technological competency" (*Middle States Characteristics of Excellence, Standard 12*).

Faculty CAP (Curriculum and Academic Policy) committees oversee general education in the undergraduate programs in the College of Arts & Sciences and School of Professional Studies. Deans and faculty work together to articulate the common general learning goals that inform curriculum development. The CAS-CAP and SPS-CAP committees also consult with the CAP committees of the professional schools (NHP, EDU, BGS) to ensure that the goals and courses for general education support the learning goals of the professional programs. The University CAP committee (UCAP), whose members comprise representatives from all academic units, meets monthly to exercise final academic authority over general education and assessment.

Through the standing curricular committees, Trinity's faculty manage the development, assessment, and evolution of the general education curriculum and work to ensure clear, comparable and consistent outcomes in each school. While the population of students in the two undergraduate schools differs in some respects (CAS students are more likely of traditional age; SPS students more likely have extensive professional experience) the essential learning outcomes must be equivalent in both units. Through frequent consultation on review, assessment and revision, faculty and administrators in the two schools work diligently to ensure equivalency in the general educational experiences shared by each and every Trinity undergraduate.

As Chapter Three on student learning outcomes indicates, Trinity's faculty have articulated university-wide learning goals aligned with Trinity's mission statement. [DR 4.1: Mission and Goals](#) links to the web page with the statements of mission and goals. The university-wide U-CAP Committee supervises the overall implementation of these goals. The university-wide learning goals serve as the framework for General Education, Core, and disciplinary curricula in all academic units.

In fall 2015, Trinity's Office of Academic Affairs launched a campus-wide Syllabus Project to ensure that all syllabi present student learning objectives and effectively measure outcomes using measures that explicitly connect objectives to college learning goals. Results showed that most units do appropriately incorporate learning outcomes (in EDU and NHP, 100% of syllabi listed explicit learning goals) but that CAS lags behind (88% of CAS syllabi listed learning goals, compared to 94% of syllabi in both BGS and SPS). Faculty, program chairs and administrators responsible for CAS general education have a new goal: 100% compliance for spring 2016.

Trinity faculty are continuously engaged in assessment and revision of the general education program. In undertaking curricular assessment and revision, the faculty utilizes assessment data from multimodal sources including course enrollment and retention reports, academic standing, advising and learning community data, examination of course exit competencies and cohort outcomes, capstone course assessment, "barrier" course reports, transcript credit audits and waiver analyses, and internal and external placement tests, in addition to direct measures of learning, such as rubric-scored embedded assessment [DR4.2: Data Sources for Curricular Assessment](#). This background and methodology provide the context for Trinity's continuous assessment and curricular improvement in general education. The next section of this report will illustrate and describe Trinity current general education structure in CAS and SPS.

A. General Education in the Undergraduate Units: 2006-2015

The general education curricula in CAS and SPS support the goals of liberal learning, professional preparation, and equity, justice and honor by providing a developmental sequence of coursework designed to prepare students for leadership in every sphere of intellectual, civic and family life. CAS and SPS general education goals are aligned across both units. These goals are set forth in Chapter 3 on student learning outcomes and are also set forth on the [Mission and Goals](#) web page. The goals respond to Middle States' expectation that the foundation for learning in general education must, at minimum, address learning in the areas of oral and written communication, scientific and quantitative reasoning, critical analysis and reasoning, and technological competency.

As an additional external benchmark and educational quality indicator, Trinity's learning goals also map onto the Association of Colleges & Universities [LEAP \(Liberal Education and America's Promise\) essential learning outcomes](#), which the AAC&U synthesized through a data-driven process examining national core outcomes, student experiences, and employer ratings of post-graduate hires. LEAP identifies the following essential learning outcomes for college graduates with a four-year degree: Knowledge of Human Cultures and the Physical and Natural World; Intellectual and Practical Skills including critical thinking, communication, and quantitative and information literacy; Personal and Social Responsibility, and Integrative and Applied Learning.

General education has experienced two periods of reform since the 2006 Middle States self-study. Following that accreditation moment, Trinity undertook significant reform of general education programs and assessment processes. This reform produced a structured curriculum with clear learning goals designed to meet students at all ability levels, prepare them for increasingly challenging coursework, and provide them with the knowledge, skills and values of

a liberal arts education. The reform encompassed the crucial First-Year Experience, in which prescriptive sequencing of foundational coursework (including skills development in writing, numeracy, information literacy, critical analysis, and communication) was intended to guide students through prerequisites and into courses they needed to ensure success in upper division majors. The reform also developed intermediate and senior year assessment processes to measure whether foundations laid in the general education program were integrated and synthesized with major program outcomes. As the next chapter of this report will demonstrate, major programs were also asked to identify specific, measurable objectives that mapped general education goals such as writing, oral communication, and quantitative analysis onto major program outcomes.

The intention of the 2006 general education reform was to enhance student success, retention, and persistence to degree completion. Subsequently, a result of assessment of the general education curriculum in preparation for the 2016 Self-Study, the data revealed that the foundational sequencing extended time-to-completion and drove attrition. Consequently, the CAS faculty began a new era of general education reform to meet the needs of a new cohort of learners, with particular focus on the First-Year experience. Trinity will no longer require placement assessments, instead assessing incoming student knowledge and abilities as baseline data points. All students will be enrolled in general education content courses with wrap-around labs that deliver embedded, just-in-time skills support as students acquire the reading, writing, numeracy, critical analysis and communication competencies essential to college success.

Foundational mathematics provides an example of this new process. After examining the first year sequences of math courses (where some students took as many as five courses to satisfy requirements), revision began with the fall 2015 entering students to streamline and align the math sequence more carefully with major and career pathways. For example, STEM majors will take MATH 102 as the basis for future success in the calculus sequence; Social Science and Humanities majors will take MATH 109 which is the basis for future success in statistics coursework.

A CAS faculty cohort is piloting sections of a newly designed foundational reading course in fall 2015, and other CAS colleagues will work in 2015-16 to develop new foundational courses which will integrate reading and writing and be taught for the first time in Fall 2016.

These curricular reforms are served by a significant change in academic advising; first year students are now directly connected with a full-time professional advisor who is available every day to consult on academics and provide support when students encounter challenges. Professional advisors are focused first and foremost on first to second year retention, but also help Trinity address the issues of course sequencing identified in the assessment of Capstone courses.

The changes underway in CAS also inform a parallel reform process in SPS. [DR 4.3: SPS General Education Multi-year Assessment Plan](#) provides more details of this process.

B. Structure of General Education and the CAS First-Year Experience

The CAS faculty engage in continuous review of the First-Year Experience and general education effectiveness, guided by the goals of general education design. The CAS faculty also determined that students in the First-Year Experience should acquire skills for academic success, including the ability to manage time efficiently, study effectively, and take responsibility for their own learning.

CAS designed a first year program with curricular and co-curricular programming that includes first-year cohorts for seminar coursework in critical reading and analysis. The seminar design includes meta-majors, just-in-time academic skills training both embedded in foundational coursework and available through academic services, and proactive, professional advising. Faculty, staff and administrators work closely together to ensure that each of the three prongs of student experience – coursework, academic success services, and proactive advising – are maximally effective through strong communication, consultation and coherence among responsible offices. Trinity's number one strategic goal is enrollment and retention; to help meet this goal, Trinity delivers seamless student wrap-around services in the first year, which the institution recognizes as the critical period in retention and persistence.

CAS general education goals and objectives are organized around four units, which roughly correspond to the first four or five semesters of a student's undergraduate tenure. In the first year, foundational coursework in critical reading and reasoning, writing and communication, and quantitative literacy develops students' capacities to engage and learn from a broad introduction to the liberal arts manifest in the Knowledge & Inquiry sequence. Values and beliefs, ethics and professional preparation are introduced in the second year with Values & Beliefs, Applications and Capstone experiences (**Chart 4.1** illustrates this sequence). The Capstone seminar is designed as a natural exit point, allowing for broad assessment of student learning outcomes in general education.

Chart 4.1: CAS General Education Curriculum Structure			
<i>I. Foundational Skills</i>	<i>II. Knowledge & Inquiry</i>	<i>III. Values & Beliefs</i>	<i>IV. Applications</i>
Critical Reading Seminar*	Social Sciences*	Religious Studies & Theology*	Civic Knowledge*
College Composition*	Science/Math*	Ethics*	Leadership*
Communication	History/Arts/Humanities*		
Quantitative Reasoning*	Foreign Language		
Critical Reasoning			
<i>V. General Education Capstone Seminar*</i>			

*2006-2015 assessment points

[DR 4.4: General Education Goals and Measurable Objectives](#) provides a complete schedule of the general education goals & specific objectives that demonstrate acquisition of the learning goals.

The following case studies illustrate ways in which assessment results have led to general education curricular reform. In each case, direct and indirect measures of student learning outcomes are key data points informing curricular revision. In assessing general education, faculty and administrators ask the following question: how effectively does Trinity's general education program meet college-level learning goals in fulfillment of Trinity's institutional mission?

➤ *CASE STUDY: Intended-Nursing (UND-N) cohort outcomes and how Trinity's Sciences programs are closing the loop and ensuring improved student learning*

This case study illustrates a collaborative effort in the sciences to improve student learning outcomes among students in the College of Arts and Sciences who engage with the general education curriculum on their pathways to apply to the nursing program. This account will illustrate Trinity's commitment to the goals of liberal learning in all disciplines, including the professional schools; demonstrate collaboration across units; and communicate how Trinity engages the cohort model as a tool in assessment of student learning outcomes.

Anatomy and Physiology I (BIOL 121) is the most common first science course taken by students in the College of Arts and Sciences "Undecided-Nursing" (hereafter UND-N) curriculum at Trinity Washington University. The nursing program has set a required passing grade of "C" as the benchmark criterion in this general education and nursing-prerequisite course. Assessment data collected between 2009 and 2012 indicated that 65.57% (80 of 122 students) of this cohort did not pass BIOL 121 the first time it was taken. This pass rate suggests that the General Education Knowledge & Inquiry: Science and Mathematics cluster was not meeting CAS and SPS learning goals 3 and 6: understand and use quantitative reasoning and apply diverse modes of inquiry to the natural world.

The deans, assistant provost for the Sciences, Biology program chairs and faculty, in collaboration with the School of Nursing and Health Professions, undertook a large-scale assessment to measure and improve learning outcomes in this key gateway course. First, faculty and administrators developed an internal anatomy and physiology placement test, based on Trinity's internal student data and placement cut-off scores, and piloted the test to determine student preparedness prior to enrollment in BIOL 121. This placement test includes content in the math, biology and chemistry materials essential to success in BIOL 121. The team proposed that students who did not place into BIOL 121 directly should take BIOL 101 to prepare.

In 2013, the science team conducted a study to assess the predictive value of the placement test and to determine the minimum score that should be required for placement into BIOL 121. They collected assessment data across two sections of BIOL 121, taught by different instructors, from a total of 24 students. In both classes, students took the placement test at the beginning of the course, and these initial scores were compared to final course performance for each student. A Pearson's correlation between the pretest score and final course grade produced an R value of 0.79 and 0.73 for each section, respectively. These results suggest a strong positive correlation between performance on the placement test and performance in BIOL 121.

To assess whether student outcomes improved after taking BIOL 101, students took the assessment test at the beginning of BIOL 101 and again at the end of the semester. The average percent improvement on the post-test was 48%. Only 5% of the students scored above 50% on the exam at the beginning of the semester while 50% of the students scored above 50% at the end of the semester. These data collectively suggest that there is a strong positive correlation between performance on the placement exam and performance in BIOL 121, and that students taking BIOL 101 improve performance on the placement exam.

To close the loop, the Trinity science program implemented a requirement such that students must earn a 40% on the placement exam before they may take BIOL 121. If students earn less than a 40% on the placement exam, they are required to earn a C or better in BIOL 101 prior to taking BIOL 121. The next phase of ongoing assessment is to evaluate pass rates in BIOL 121 and to correlate student pass rates in BIOL 121 after taking BIOL 101. Preliminary data suggest that the placement test and BIOL 101 requirement are strengthening students' abilities related to CAS learning goals 3 and 6. This curricular recommendation, based on faculty-driven, internal assessment of student learning, is improving outcomes for students who intend to major in nursing, and therefore retention and persistence.

➤ *CASE STUDY: Revising the First Year Foundational Course Sequence*

For about the last 8 years, Trinity has used Accuplacer assessments to place CAS and SPS students into foundational skills courses in math, critical reading and writing. This sequence was intended to ensure student success in both general education and major programs. However, in examining attrition data, Trinity's academic leaders came to the conclusion that the courses originally intended to help students be successful in college actually created barriers to success and encouraged early exits, a finding supported by a preponderance of literature on foundational courses.

In the years 2013-2014 Trinity undertook a thorough and searching assessment of student learning outcomes in the foundational course sequence. The assessment found that students repeated preparatory courses and their subsequent foundational pairings in fairly high numbers: undergraduates have a 12-28% chance of needing to repeat at least one of these courses. These data suggest that Trinity's prerequisite sequencing did not meet learning goals of engaging students or preparing them for their general educational coursework.

Informed by the internal assessment and a review of relevant research on successful models for advancing underprepared students, the CAS dean organized a curriculum revision initiative with an ad hoc faculty committee focusing on first year curriculum reform. The committee was charged with improving Trinity's approach to foundational education by empowering students to build critical reading, writing and inquiry skills through engagement with the liberal arts. Built on research-based practices, the committee recommended a new course sequence intended to reduce exit points by engaging students directly with general education coursework in the disciplines, tailoring support to the specific reading and writing demands of the courses, and integrating reading and writing instruction. Trinity anticipates that the increased student engagement opportunities embedded in this design will improve persistence in first year and improve the first-to-second year retention rate which is a strong marker for ultimate degree

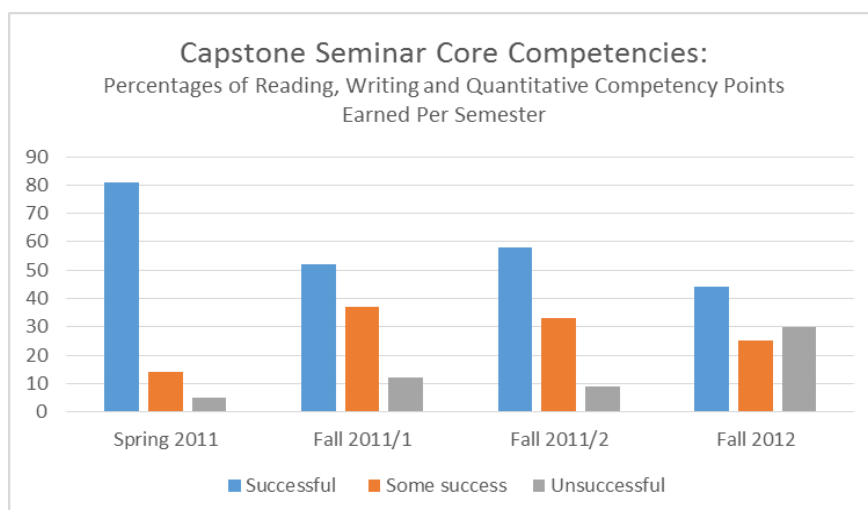
attainment. Early returns on first-to-second semester retention (fall 2015-spring 2016) point to success: Trinity's enrollment of expected-to-return first year students had increased to a remarkable 72% in late November 2015, as compared to 63% at the same time in 2014.

➤ *CASE STUDY: The Capstone Seminar Assessment Project*

The CAS General Education Capstone Seminar (as distinct from the Senior Seminar course taken in the major) provides students an opportunity to integrate the knowledge, skills and values acquired across their two years of general education coursework. Ideally, students take the General Education Capstone Seminar in late sophomore or early junior year; at this point, the faculty expect students to be grounded in the core competencies (reading, writing, quantitative analysis) which they must synthesize in their capstone seminar work. The faculty intended the capstone as a transition point from the foundational liberal arts curriculum into the majors.

As part of the on-going general education assessment plan, the College of Arts & Sciences Curriculum and Academic Policy Committee (CAS-CAP) decided to assess core competency outcomes in the Gen Ed Capstone seminars. CAS-CAP envisioned this multi-year assessment plan in 2010, collected data for four semesters (through Fall 2012), analyzed the data in 2013, and presented it to the faculty, at which point course the faculty discussed and instituted course and curricular revision. CAS-CAP first developed a pilot rubric to assess core competency success in the Capstone Seminars ([DR 4.5 Presentation to Faculty with Assessment Rubric](#)). CAS-CAP asked instructors to rate each student's final project on reading comprehension, written communication, and quantitative reasoning (among other selected measures). Instructors also assessed students' final projects for "ability to integrate the skills, knowledge and understanding gained in earlier Gen Ed courses" as well as "broad and intellectual inquiry." The rubric included grades on the final project and in the course as data points. In subsequent semesters, CAS-CAP expanded the rubric to include students' oral communication skills, information about each student's earlier foundational class success, and number of credits completed prior to Gen Ed Capstone enrollment. In total, the project assessed 11 individual courses across four semesters from a variety of disciplines including humanities, communication, psychology, fine arts and interdisciplinary studies. ([DR 4.6: CAS-Spring 2013 Capstone Report](#)). See sample findings for one course in **Chart 4.2** below:

Chart 4.2: Two-Year Assessment of Four Sections of PSYC 365: Human Sexuality



The above example shows that although a majority of PSYC 365 students was successful or showed some success on core competencies of quantitative analysis, writing, and reading, student success decreased rather than increased over time. A granular analysis of outcomes suggested that some students struggled to apply the skills taught in foundational courses to the lengthy paper required in the Gen Ed Capstone Seminar. In addition, instructors noted that student performances on the final project and the overall course grade did not correlate.

CAS-CAP presented the findings of this assessment to the CAS faculty in Spring 2013; the faculty addressed deficits by engaging in extensive course redesign in the 2013-2014 academic year. For instance, in PSYC 365, the instructor enhanced instruction in the process of writing, and provided more detailed project support. The faculty also decided to retire completely an outlier course, INT 250: Writing for Social Change, in which students were unable to demonstrate competencies successfully. In 2016-2017 (now that the courses have been taught for a semester or two), CAS-CAP plans to reassess the seminars to determine if new and revised processes support students in successfully meeting the intended goals of the course.

While engaged in this project CAS-CAP also learned that students were taking the Gen Ed capstone out of sequence, either earlier or later than intended. They also learned that some students in the course were not prepared: they either had not completed their foundational courses, or had not done well in them. As a result, several new Capstones were added to the academic schedule to provide more opportunities for students to take the course in the intended sequence; and the committee also conveyed these findings to advising. Professional advisors utilized the data to revise course mapping protocols and academic plans. Though the assessment findings revealed Gen Ed Capstones were not fully meeting intended goals, particularly with regard to integrative writing, the valuable data gleaned through this project informed course development and revision – as well as student advising protocols.

Many other examples of general education assessment and curricular improvements are available in reports in the document room. See [DR 4.7: CAS General Education Reports](#) and [DR 4.8: SPS General Education Reports](#).

Conclusion to Chapter Four

The knowledge, skills and values that come through a strong general education program in the liberal arts are the foundation for student success in all major programs, and later on in graduate education and professional life. Trinity's faculty in the undergraduate programs in both CAS and SPS have worked continuously to assess the effectiveness of general education.

Recommendations:

- In 2015-2016, the faculty will start a new round of assessment to determine the effectiveness of changes particularly in the Math sequence and the Writing courses.
- A more incisive assessment of the effectiveness of general education for adult students in SPS will pave the way for changes in the courses offered to ensure that adults in the workforce develop strong general education knowledge and skills.