

Chapter XII: CAPSTONE EXPERIENCES

Who takes it?

All seniors take a capstone course in their major.

When is it administered?

During the senior year.

What office administers it?

The faculty of the discipline.

Who originates the assessment?

The faculty of the discipline.

When are results typically available?

The fall following the year in which the capstone courses are given.

What type of information is sought?

Each discipline establishes specific outcomes for that discipline.

From whom are the results available?

The faculty of the discipline or the department office.

Are the results available by department or discipline?

Yes—by discipline only.

Are the results comparable to data of other universities?

No.

Over the last two and a half decades, faculty within each discipline have developed many approaches to capstones and have discovered numerous benefits beyond the initial expectations. Capstone courses help students to integrate the subfields, skills, and perspectives of the major. They prompt faculty discussion, which contributes to increased coherence of a major's course of study. The courses create opportunities for multiple assessments to be made of the major and liberal arts and sciences objectives by the faculty themselves. It is the faculty's direct analysis of the students' cumulative learning that makes this method of assessment so beneficial.

GOALS FOR STUDENT LEARNING

Truman seeks that its students graduate with in-depth knowledge in the major comparable to knowledge received from the best universities in the country and the world. Thus, the University emphasizes that a student's learning should be cumulative and should cover the breadth of the discipline. The graduating student is also expected to demonstrate the ability to integrate knowledge and to make interdisciplinary connections.

Skills that have been identified as critical objectives for the University include the ability to write various types of papers, to speak comfortably both in formal and impromptu presentations, to work collaboratively with fellow students, and to think critically. Assessment of the third goal, attitudes, has included varied levels of attention, but many of the majors have developed several of the following four foci:

1. Does the student demonstrate openness to more than one position and make fact/value distinctions?
2. Does the student possess positive self-esteem and practice self-evaluation?
3. What are the students' attitudes toward the University and the major?
4. Does the student demonstrate ethical and social responsibility?

SELECTED ASSIGNMENTS FROM CAPSTONE COURSES: KNOWLEDGE, SKILLS AND ATTITUDES

Strategies for senior experiences to demonstrate and build on student knowledge of the discipline range from presenting an article review to writing a formal thesis or paper, or from designing a research project to sitting for a locally-developed comprehensive exam. Independent of the capstone course, the University requires each graduating student to sit for a nationally standardized exam. Furthermore, interdisciplinary connections are encouraged through such mechanisms as selected case studies, required interdisciplinary portfolio entries, and exit interview questions that ask the students to identify connections between their major and the LSP. The University's portfolio assessment of the liberal arts and sciences is implemented through capstone courses. Faculty in the major are asked to discuss the portfolio with students in the capstone and are invited to add specific portfolio requests pertaining to objectives in the major.

To assess student skills such as communicating and collaborating, faculty might ask students to formally present their research to the class, to argue and defend an issue position, to sit for an oral examination, or to work in groups to solve a problem and/or conduct a research project. Many of the capstone courses also attempt to consciously assess various levels of critical thinking through the ability to apply concepts and theories of the discipline to new situations, and to analyze, synthesize, and evaluate. Other disciplines focus more generally on problem-solving ability. Case studies, literature reviews, argumentation papers, audience analysis, canon discussions, and student self-evaluation each prove to be popular assignments that combine knowledge objectives with skills assessment.

Objectives regarding attitudes are more difficult to specify and assess than knowledge and skills, but faculty in many majors have developed a consensus on several objectives and have developed approaches to assess them. Case studies can present students with ethical dilemmas to resolve, and role-playing can be an effective means for demonstrating multiple perspectives to an issue. Students may be asked to argue for a position other than the one they hold. Many of the capstone courses provide multiple opportunities for students to self-assess. Students might be asked to identify their strengths and weaknesses during an exit interview or to evaluate the curriculum. Every student is asked to evaluate the University and the major in the University-wide Graduating Student Questionnaire survey. Faculty in the major then receive the data on their majors as well as University averages during the summer Strategic Planning and Assessment Workshop.

CAPSTONE BENEFITS

Benefits of the capstone courses are varied, but an examination of the benefits of a specific capstone can best demonstrate some of the potential contributions capstone courses can make. In some programs, team teaching the capstone course brings opportunities several times a week for colleagues to reflect on and discuss student learning in the major. Inevitably, such discussions include references to the curriculum, specific assignments, and teaching pedagogy. Faculty have the opportunity to learn teaching strategies and discipline subfields from each other. This is a particularly good opportunity to mentor new faculty about the importance of discipline objectives, high expectations for students, and frequent faculty-student interaction. Through collegial discussions, program objectives are shared, cohesiveness increases, and improvements are planned.

VARIOUS MODELS OF CAPSTONE EXPERIENCES

Since the University granted faculty in each discipline the autonomy to interpret the capstone requirement for their major programs, a wide variety of models has evolved. Several models are presented in the following pages showing the knowledge, skills, attitudes paradigm. These various models provide a more complete description of capstone courses at Truman State University. Selected disciplines, one from each school, are included below.

DISCIPLINE: Chemistry

Catalog Description: CHEM 445 – Senior Chemistry Seminar

Senior Seminar coordinates the transition of the graduating chemistry major to the next goal, whether professional employment or graduate school. The seminar assists the student in preparing for senior exams, developing a résumé and interview skills, setting long-range career goals, and applying to graduate school.

Credits: 1 hour

When Offered: (offered fall only)

Senior Chemistry Seminar has two principal objectives:

- **Reflection on the culture of American chemistry and on the profession of Chemist that will be conferred upon the students when they receive the American Chemical Society-certified Bachelor of Science degree in chemistry.**

Once the student receives this nationally-certified degree, he or she is a chemist forever...and no one can take this identity away from him or her. Along with this distinction and its powers and privileges comes a mandate to be an ethical practitioner of the profession of chemistry. Senior Chemistry Seminar provides the opportunity to reflect on this life choice, to consolidate and express one's thoughts at its threshold, and to discuss its meaning among peers and with the professor. A written reflection of the student's professional self-image, self-identity, and expectations is assigned as a term paper.

- **Preparation for the logistics of graduation.**

As college life approaches closure, several important tasks need to be completed. These include applications for professional employment in the chemical process industry or in government, applications for graduate or professional school, the preparation of a *résumé* or a *curriculum vitae*, the completion of the University-required Major Field Achievement Test (MFAT) in Chemistry, completion of graduate and professional school aptitude/placement examinations, and the completion of the University's graduation protocol, including the University Portfolio. Senior Chemistry Seminar provides the opportunity for the student to plan for and pace himself or herself through these processes.

DISCIPLINE: Business Administration

Catalog Description: BSAD 460 – Strategic Management

Capstone course designed to integrate knowledge of marketing, management, finance, and accounting to develop alternate strategies for various profit and nonprofit, large and small, domestic and multinational firms using primarily the case method of instruction.

Prerequisites: BSAD 325, BSAD 329, BSAD 349, BSAD 352, senior standing, and major in business administration or accounting.

Credits: 3 hours

NOTE: This is a writing-enhanced course.

The capstone experience is a graduation requirement for all accounting and business administration students. The faculty designed the Strategic Management course to integrate material from the business and accounting core curriculum and to support the many elements of the School's mission. Students work in teams to analyze company strategies that incorporate functional plans for management, marketing, finance, and accounting thereby reinforcing problem solving, leadership, and teamwork skills. All sections of this course are classified as writing-enhanced and include significant writing assignments. In addition, several sections of the course emphasize speaking skills through group and individual presentations. The School collects responses to specific prompts as part of the course requirements to aid with the School's assessment activities.

DISCIPLINE: Health Science

Catalog Description: HLTH 440 – Program Implementation and Evaluation

This course is designed to develop a more complete understanding of the skills and abilities needed by health educators/promoters for program planning, implementation, and evaluation. The student will be exposed to a wide variety of learning activities and discussions that focus on the core competencies for entry level health educators. In addition, topics will be presented that further the concept of planning, implementation, evaluation, and re-planning as a cyclic event. This course includes an integrated service learning component. Students will complete their Liberal Arts and Sciences Portfolio in this course. This course constitutes the health science capstone experience. Prerequisites: HLTH 366 and Health Science major.

Credits: 3 hours

HLTH 440 serves as the capstone experience for health science majors. It is designed to develop a more complete understanding of the skills and abilities needed by future health educators for program implementation and evaluation. A wide variety of learning activities and discussions focusing on the core competencies for entry-level health educators are employed in this capstone course. Topics presented emphasize a theoretical basis for planning, implementation, evaluation, and re-planning as an ongoing process. The group project (2-4 students) for HLTH 440 is an applied project requiring students to engage in a minimum of 15 hours of work outside of class during the semester. This capstone project is a culminating experience for students in health promotion/health education, using their CHES competencies to: assess community needs; plan effective programs; implement health programs; evaluate the effectiveness of the programs; coordinate the provision of services; act as a resource in health; and communicate health needs, concerns, and resources.

DISCIPLINE: Economics

Catalog Description: ECON 479 – Senior Seminar in Economics

The capstone experience for the economics major. This class entails a broad review of microeconomics,

macroeconomics, and empirical methods in economics, in preparation for the senior exam in economics, and culminating in an original empirical economic analysis. The course will also focus on employment and graduate and professional educational opportunities for economics students.

Prerequisites: completion of or concurrent registration in ECON 300, ECON 303, and ECON 373; junior or senior economics major or minor.

Credits: 3 hours

When Offered: (offered fall only)

NOTE: This is a writing-enhanced course.

ECON 479 Senior Seminar in Economics serves as the capstone experience for the economics major, and as such, serves as an integrating experience for the students. Students are required to produce an empirical research paper on an economic topic of their choosing, based on sound theoretical foundations and a review of the relevant literature, and give a PowerPoint presentation on their project. Students in the class are presented information on graduate and professional school opportunities in economics and related disciplines and career opportunities for those with undergraduate and graduate degrees in economics. A section of the course focuses on the major professional awards conferred upon prominent economists, the recipients of those awards, and contributions to economics of those who have been recognized by these prizes. This course will also give students an appreciation of the widespread applicability of economics in the modern world and make them think about how and why economists may be different from others.

The major determinant of a student's grade in Senior Seminar in Economics derives from their performance on a multi-part empirical research paper, essentially a senior thesis. The structure of the writing assignments in this course allows its designation as meeting part of the writing-enhanced requirement in the Liberal Studies Program. Students submit a paper topic, an annotated bibliography, a literature review, a model specification and presentation of the hypotheses they will be testing, a rough draft, and a final polished paper. Most of the preliminary stages of the paper also provide ample opportunity for revision and resubmission. In completing their project, students also give a couple of oral presentations. First they present their model specification and hypotheses before the class for critique and comment; and finally, at the end of the semester, students will participate in a mock economics conference in which they formally present their papers with a PowerPoint presentation. Other class members are assigned as paper discussants.

Students in Senior Seminar in Economics receive an extensive bibliography of sources on graduate education and careers in economics. Opportunities for graduate study in economics and related disciplines are discussed, and sometimes we bring in guest speakers to talk about graduate school or employment opportunities.

Senior Seminar in Economics reinforces the broad applicability of economic tools to studying a wide variety of interesting and important topics. One assignment in the course requires students to read and summarize an extensive literature review on the applicability of economics to the study of diverse topics. At present, the literature reviews that students can choose from are the topics of the economic analysis of sports labor markets, an economic analysis of religion, and an economic analysis of terrorism. This assignment both familiarizes students with the style and content of a good literature review, for assistance in doing their empirical research project, and

lets students see some of the growing number of applications of economic analysis to non-traditional fields of study. The students also write a brief paper on the contributions to the discipline of a Nobel laureate in economics of their choosing.

Senior Seminar in Economics also addresses assessment issues for both the University and the discipline. Each student receives information about the Portfolio and an entire day in class is devoted to discussing the prompts and types of submissions that might be appropriate for each category in the Portfolio. Towards the end of the course, students in this class are administered a Senior Survey in Economics. This assessment instrument designed by the Economics Department provides students an opportunity to evaluate the economics major as a whole so that departmental faculty can get needed feedback on what works and what may need to be changed.

DISCIPLINE: Theatre

Catalog Description: THEA 495 – Senior Theatre Seminar

Assessment and portfolio completion for graduating theatre majors, including research into graduate study, internships, and résumé preparation. Two hour laboratory session each week.

Prerequisite: Theatre major and senior status.

Credits: 2 hours

NOTE: This course counts toward the 63-hour Liberal Arts and Sciences (LAS) graduation requirement.

NOTE: This is a writing-enhanced course.

Senior Theatre Seminar is the capstone course for the theatre discipline. It is a one-hour course, currently involving 2-3 contact hours per week and designed to help students address questions and concerns regarding careers in theatre and/or further study in graduate school. It also assists students in assessing their growth within the Department; demonstrating knowledge, skills, and attitudes developed during their studies; and articulating their overall experience with the major. Accordingly, students are given a wide variety of experiences throughout the seminar, which include the following:

- The writing of a personal manifesto of theatre, designed to help students clarify their professional philosophy and goals with regard to a career in theatre. This manifesto is compared to the one written upon entrance to the program in the New Majors Seminar.
- Peer reviewing, editing, and discussion of the manifestos of fellow class members.
- Developing a series of resumes for vocational and academic contexts.
- Conducting and interpreting a vocational interview with professionals currently working in their field of interest.
- Engaging in a simulated job interview.
- Taking a departmentally designed assessment exam, discussing, and comparing it with the same one taken in the New Majors Seminar.
- Taking a departmentally designed senior exit survey to provide feedback to the faculty and allow for self-assessment and reflection.
- Completing a final project related to the student's individual area of specialization, often constructed in the form of a portfolio.
- Applying for graduation, preparing for the GRE and GSQ, organizing the University

Portfolio for submission, and investigating professional organizations, unions, and conferences.

The theatre faculty believes the concept and design of this capstone experience offer both faculty and students multiple assessment opportunities and ensure a smoother transition for students from the University to the professional world upon graduation.