

## Thoughts about Capstones

In *Reinventing Undergraduate Education: A Blueprint for America's Research Universities* (April 1998), the Boyer Commission recommends that academic majors “culminate with a capstone.” Capstone experiences are useful for three reasons.

- They allow students to bring together the learning in the major and demonstrate that they have met the departmental learning goals. This gives students a chance to know what they know and to understand their own growth over time in their chosen fields.
- They serve as a bridge to the next step for students, often asking students to extend their knowledge, working either independently or collaboratively with peers, under minimal faculty supervision.
- They provide a “destination” for faculty planning, so that faculty designing courses at the 100-, 200-, and 300-levels know where students will need to “end up.”
- They provide information to departments about strengths and gaps in their curricula. When faculty involved in capstone experiences discuss those experiences together, they can provide information about student performance in the aggregate; in this way, capstones serve as assessment sites for the department.

Most capstones in the major require students individually or in groups to complete a serious intellectual project, incorporating the discipline’s primary mode(s) of inquiry into a final product that is consistent with practices in the discipline. Such projects also allow students to demonstrate that they have met the learning goals in the major. However, there is no single good “design” for capstone courses or experiences. The best design for a capstone is that which is informed by the content, practices, and values of the major that it is “capping.” Some of the one-quarter “shapes” capstones can take include:

- **Independent Study Model:** Students work on individual topics of their choice, meeting with a faculty member at the beginning to propose a project, in the middle to review a draft, and at the end to present the paper and sometimes, also, to give an oral presentation. The role of the faculty member is to be available to individual students and to give the capstone project either a grade or a “pass.”
- **Task Force Model:** The UW’s International Studies major in the Jackson School of International studies offers an excellent example of this model. Majors enroll in a capstone class focused on a topic that the department has identified, based on instructors’ interests and expertise. The 15-20 students—all majors in International Studies—in each task force decide what they will argue about that issue and what aspect of that argument each individual will write about. Each student in the class produces her own argument. The group puts all the arguments together in a “book” about the topic, crafts an intro and conclusion, and submits it to the faculty member leading the task force. In the case of the Jackson School, the book is then sent to an expert in that area, often a policy-maker in Washington, D.C., for critique. After two weeks, the expert is flown to the UW to question the students about their arguments, and students are evaluated, in part, on how well they respond to the questions. The role of the faculty member in this model is to guide students, help them identify resources, assist in the collaborative process, make sure they are drafting, reviewing each other’s work, and revising, and help them prepare for questioning.
- **Portfolio Collection Model:** Majors enroll in a course that serves as a site for portfolio collection and reflection. In this capstone, students are required to place specific documents from their previous work in the major into a portfolio that illustrates their achievement of the major’s learning goals. Sometimes students revise some of that work for the portfolio. Sometimes they have to add a final piece—a research paper, for example. Students are usually asked to include a reflective essay in the portfolio, explaining what the portfolio shows about their experience as undergraduates in the department. The role of the faculty member in this type of capstone is to help students revise and self-assess and to help students gather information from each other. Such portfolios (or samples of them) can be used by groups of faculty to evaluate the curriculum. The UW’s Catalyst programs have an electronic portfolio possibility in place for use by students and courses.

- **Course Model:** Similar to the task force model, students enroll in a class that focuses on an issue in the field. The course is designed to ask students to demonstrate the learning goals for the major and is pitched high to stretch students to the next level. In this version, all students study the same area or work on the same problem, and they usually produce papers or create projects around the issue under study. The faculty's role is to teach the course and evaluate students' work.
- **Experiential Model:** Students sign up for internships or other kinds of experiential learning. They can be required to produce something for a linked course, or, if the department feels confident that the level of demand imposed by the internship is consistent with its goals, the student can be required simply to complete the internship. The role of the faculty is to help students make connections between learning in the major and learning on the ground and to make sure that evaluation includes departmental learning goals. Internship/research/service supervisors are active parts of the assessment of the student's performance.
- **400-level Spread:** Faculty agree that all senior-level courses will ask students to complete 1-3 tasks that are similar in their level of cognitive demands. For example, faculty might agree that in these courses, students must lead a discussion, participate actively in threaded discussions online, and write an advanced research paper in the field. All courses at the senior level thus function as a kind of capstone experience. The role of the faculty is to guide and evaluate students, assess learning against the goals of the major, and coordinate with other senior-level faculty.

Each of these models has strengths and drawbacks. A department may choose one of these models for its capstones or offer students a choice among them if they feel confident that several models offer similar opportunities for students to demonstrate learning in the major.

When planning a capstone experience, take care to:

- Invite and use broad faculty participation in the design of the capstone
  - Be clear to faculty and to students about the learning goals that students will be expected to demonstrate; these goals should be identical, or nearly so, to departmental goals for majors.
  - Require the capstone as part of the degree program
  - Ensure that students get meaningful feedback on capstone projects
  - Take the time to engage faculty leading capstones in a conversation with or without course documents/products on what they noticed were particular strengths and gaps in the students' performance. Record what faculty identify as strengths and weaknesses in students' performances. Then use that information to revise the curriculum. This step is essential for assessment of student learning in the major to be used to help faculty assess the major, itself.
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