

How to Develop Your New Program

Map the Curriculum

There are many ways to map a curriculum. The goal of mapping is to produce a diagrammatic representation of the program that shows the organization and interrelationship of all courses (much like a blueprint).

For new program proposals, the document is formatted as a program map that names clusters of common courses and all associated individual courses.

Another valid format is a competency profile¹ that lays out the curriculum in terms of competency clusters (general areas of competence) and associated skill sets or competencies. Competency profiles are commonly used in trades-related programs.

In either case, the purpose is to provide a snapshot of the whole program that illustrates the:

1. Range of related subjects or general areas of competence (vertical integrity of the curriculum)
2. Developmental sequence of learning (horizontal integrity of the curriculum)
3. Relative weighting of subjects/competencies in terms of hours and percentage of the overall curriculum

A Mapping Method

A group of stakeholders is needed to create a program map that accurately integrates the curriculum. It should take about an afternoon to generate a rough program map that is sufficient to provide faculty with a roadmap for developing the course outlines.

Gather as many program faculty together as possible, including faculty from associated disciplines and academic studies. The Instructional Development Consultant (IDC) on your School Working Group can help facilitate this session.

1. Start with the anticipated result and work backward from there, using the program goals in the notice of intent for reference.
2. Brainstorm each program goal statement in turn, answering the question: "In general, what knowledge, skills, and practical experience would a student need to learn to achieve this goal? Write every answer on a sticky note and post them on a wall.
3. Step back and look for patterns. Regroup the stickies into "clusters of commonality." Give each cluster a descriptive name; for example, Applied Academics, Technical Knowledge, Technical Skills, Applied Skills, Communication, Computer Skills, Design, Troubleshooting. These clusters form the *vertical integrity* of your curriculum. (See the example on the next page.)
4. Start sequencing items within each cluster from simple to complex, from concrete to abstract, or by some other mutually agreeable principle. This begins the *horizontal*

¹ This 'How To' document focuses on how to generate a program map. For assistance in developing a competency profile, please contact your [LTC School Liaison](#).

integrity of your curriculum that eventually gets mapped by term/level and developed into individual courses. Ideas for new course names will likely start leaping out at you during this process. Feel free to add items, modify items, or prune redundancies as you need to.

5. Tentatively assign each descriptive cluster a weighting relative to the curriculum as a whole. For example, Applied Academics 15%, Technical Skills 25%, and so forth. This process reveals the balance among program elements and leads to assigning course credits and teaching loads.
6. Transcribe the rough map into a spreadsheet in Excel or a table in Word. Consider recruiting clerical support for this step. Your rough working map and notes might look something like the example below. It should contain enough details to help in course development.
7. Distribute copies to the working group, to faculty in your department, and to other academic stakeholders as appropriate (e.g., Academic Studies faculty) for reflection and comment.

Example of a rough working map

Clusters	Level 1	Level 2	Level 3	Level 4	Weighting
Technical Knowledge and Understanding	WDAM xxxx Widget Design Principles 1 • knowledge • skill • knowledge • skill (Anni R.)	WDAM xxxx Widget Design Principles 2 • knowledge • skill (Amardeep M.)	WDAM xxxx Codes and Regulations • regs.1-14.7 • associated codes (Enrico S.)		20% x credits
Applied Technology (applied knowledge and understanding of practice)	WDAM xxxx Widget Construction 1 • knowledge • skill (Ahmed M.)	WDAM xxxx Widget Construction 2 • knowledge • skill (Krista G.)	WDAM xxxx Digital Widget Project 1 • knowledge • skill (Angie S.)	WDAM xxxx Digital Widget Project 2 • knowledge • skill (Solomon J.)	25% x credits
Computer		CIVL 2003 Computer-aided Design • skills • skills • skills • skills	CIVL 300X CAD Lab (see project #2) • scaling		15% x credits
Applied Sciences	CHEM 1XXX • organic analysis • sample prep • techniques	PHYS 2XXX Physics of Widgetry • knowledge • knowledge • skills			10% x credits

Clusters	Level 1	Level 2	Level 3	Level 4	Weighting
	Math 1098 Basic Measurements in Widgetry • trig <i>(Haruto S.)</i>	Math 2xxx • orthogonal projection • scalars		MATH 4998 Applied Statistics in Widgetry <i>(Art B.)</i>	15% x credits
Communication	COMM 1XXX • basic writing • reading manuals <i>(Chunhua W.)</i>	COMM 2XXX • presentations	COMM 3XXX Preparing Technical Reports <i>(Chunhua W.)</i>	COMM 4XXX Analysis of technical reports and studies	15% x credits

From the Working Program Map to the Course Outlines

In an iterative process, you can anticipate going forward and backward. If most faculty agree that the working map is a reasonable starting place, the next step forward is for individual faculty members to think about and prepare draft course outlines, at least with the course description and learning outcomes. Some practical suggestions are:

- Be mindful that “the devil is in the details” and individual thought and research will undoubtedly send the group back to modifying the map a few times. This is healthy and productive.
- Be clear about who’s doing what. Add faculty names to the working map if this helps.
- Set a firm deadline for submitting the course outlines.
- Encourage cross consultation among faculty working on course outcomes at progressive levels of difficulty. Nothing is worse than assuming you are building upon expected learning outcomes that are not actually there! Also check for redundancies in learning outcomes.

Template for the Final Program Map

When you are ready to finalize your working map, use the Program Map template on the [Academic Planning and Quality Assurance \(APQA\) website](#). This will be a key document for the Stakeholder meeting and it will become one of the appendices in your proposal.