STUDENT DISCUSSANTS

- Chiana Ghant
  Grad Student and ASI Representative and Presidential Award Recipient
- Detrick Hudson
  Undergrad student, Veteran
- Andrea Alvarez
  Undergrad student, Sorority member, President's Office staff
- Janelle Rockwell
  2012 Alumni, took my leadership class, Presidential Award Recipient
- Maggie Venegas
  2012 Alumni
- Elijah Sims
  2011 Alumni
New Faculty Orientation 2012

COURSE DESIGN AND STUDENT LEARNING
This student-centered perspective is a hallmark of the CSUDH approach to teaching. We strive to empower instructors by helping them develop a deep understanding of how students learn, so that they can effectively apply and adapt teaching strategies to meet their own goals and their students’ needs.
Learning results from what the student does and thinks and only from what the student does and thinks. The teacher can advance learning only by influencing what the student does to learn.

– Herbert Simon
PRINCIPLES OF LEARNING

- Prior Knowledge
- Connect pieces of knowledge
- Motivation
- Integrate and apply new skills and knowledge
- Goal directed practice and feedback
- Level of development and classroom climate
- Self directed learners
Aligning the three major components of instruction: learning objectives, assessments, and instructional activities.
ALIGNMENT – QUESTIONS TO ASK

- **Learning objectives:** What do I want students to know how to do when they leave this course?
- **Assessments:** What kinds of tasks will reveal whether students have achieved the learning objectives I have identified?
- **Instructional strategies:** What kinds of activities in and out of class will reinforce my learning objectives and prepare students for assessments?
COURSE DESIGN

- Learning Objectives and outcomes
- Clearly defining what you expect your students to have learned by the end of your course or section
  - What is the most important information?
  - What is the most important idea?
  - What is the most important skill?
  - What attitudes?
COURSE DESIGN- INSTRUCTIONAL ACTIVITIES

- Translating Goals into Course Content
  - What materials?
  - What assignments?
- Course Outline
  - Readings
  - Order for course topics
  - How will you spend course time?
  - Plan course calendar
COURSE DESIGN- SYLLABUS

- Get feedback
  + Department chair, colleagues
- Your course outline for students
  + Write the Syllabus
  + An invitation and a contract with students
  + CSUDH resources for Syllabus design
Assessment is simply the process of collecting information about student learning and performance to improve education.

Student Learning Outcomes

- Are the cognitive knowledge, behavioral skills and/or affective values you expect your students to achieve.
- Must be stated in measurable terms.
- Are faculty-generated.

Every department has developed student learning outcomes.
ASSESSMENT ACTIVITIES - QUESTIONS TO ASK

- What will the student’s work on the activity (multiple choice answers, essays, project, presentation, etc) tell me about their level of competence on the targeted learning objectives?
- How will my assessment of their work help guide students’ practice and improve the quality of their work?
- How will the assessment outcomes for the class guide my teaching practice?
COURSE DESIGN

- Assessments should reveal how well students have learned what we want them to learn while instruction ensures that they learn it.
- For this to occur, assessments, learning objectives, and instructional strategies need to be closely aligned so that they reinforce one another.
# Bloom’s Taxonomy Action Verbs

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<td>Bloom’s Definition</td>
<td>Remember previously learned information.</td>
<td>Demonstrate an understanding of the facts.</td>
<td>Apply knowledge to actual situations.</td>
<td>Break down objects or ideas into simpler parts and find evidence to support generalizations.</td>
<td>Compile component ideas into a new whole or propose alternative solutions.</td>
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## Verbs

- Arrange
- Define
- Describe
- Duplicate
- Identify
- Label
- List
- Match
- Memorize
- Name
- Order
- Outline
- Recognize
- Relate
- Recall
- Repeat
- Reproduce
- Select
- State
- Classify
- Convert
- Defend
- Describe
- Discuss
- Distinguish
- Estimate
- Explain
- Express
- Extend
- Generalized
- Give example(s)
- Identify
- Indicate
- Infer
- Locate
- Paraphrase
- Predict
- Recognize
- Rewrite
- Review
- Select
- Summarize
- Translate
- Apply
- Change
- Choose
- Compute
- Demonstrate
- Discover
- Dramatize
- Employ
- Illustrate
- Interpret
- Manipulate
- Modify
- Operate
- Practice
- Predict
- Prepare
- Produce
- Relate
- Schedule
- Show
- Sketch
- Solve
- Use
- Write
- Analyze
- Appraise
- Breakdown
- Calculate
- Categorize
- Compare
- Contrast
- Criticize
- Diagram
- Differentiate
- Discriminate
- Distinguish
- Examine
- Experiment
- Identify
- Illustrate
- Infer
- Model
- Outline
- Point out
- Question
- Relate
- Select
- Separate
- Subdivide
- Test
- Arrange
- Assemble
- Categorize
- Collect
- Compose
- Construct
- Create
- Design
- Develop
- Devise
- Explain
- Formulate
- Generate
- Plan
- Prepare
- Rearrange
- Reconstruct
- Relate
- Reorganize
- Revise
- Rewrite
- Set up
- Summarize
- Synthesize
- Tell
- Write
- Appraise
- Argue
- Assess
- Attach
- Choose
- Compare
- Conclude
- Contrast
- Defend
- Describe
- Discriminate
- Estimate
- Evaluate
- Explain
- Judge
- Justify
- Interpret
- Relate
- Predict
- Rate
- Select
- Summarize
- Support
- Value
Create an Inclusive Learning Environment

The teaching-learning process is an inherently social act, and as instructors we need to be mindful of the quality of the social and emotional dynamics in our course, because they impact learning and performance. In fact, a well-established body of research has documented the effects of a “chilly classroom climate” on some students or groups of students, in particular women and other minorities (Hall, 1982).

Impact of climate on learning and performance

Listed below are some of the ways in which classroom climate can impact learning, positively or negatively:

Climate regulates the circulation and construction of knowledge. For instance, in an inclusive climate all students are more likely to volunteer different perspectives and thus enrich discussions; conversely, if some students or groups feel that their contributions are not as valued as those of others, they will withdraw from the conversation. As an example, women in technical fields often report feeling undervalued compared to their male peers.

Climate impacts meta-curricular and citizenship skills. In a productive classroom students can learn to work in groups with students different from them in ways that facilitate the development of skills such as leadership, communication, and conflict resolution. At the opposite end of the spectrum, non-inclusive learning environments facilitate the perpetuation of stereotypes about students from other groups.

Climate engenders emotions that impact learning. In a productive class, the learning experience is characterized by excitement for discovery, joy, satisfaction and pride at one’s accomplishments. All these positive emotions have the effect of motivating students for further learning. Conversely, if the predominant emotions in a class are fear, shame or embarrassment for being wrong, or boredom and apathy about the content, these negative emotions will be highly demotivating to students (Ford, 1992).

Climate can channel energies away from learning or toward it. For instance, if gay or lesbian students feel it is not safe for them to be out in class, they tend to carefully monitor their participation for fear of inadvertently exposing themselves, limiting their engagement with the material. Conversely, in classes where they feel free to be themselves, they often capitalize on their personal experience of having challenged conventional assumptions by engaging with the material in creative ways (Renn, 1998).

Climate communicates expectations placed upon students. This is relevant because people tend to perform in relation to the expectations placed upon them. When students perceive that the instructor thinks they are smart and capable, they meet those expectations – the so-called Pygmalion effect (Rosenthal & Jacobson, 1992). Conversely, when students perceive that expectations placed on them conform to stereotypes (e.g.,
African-American students are less capable), they will underperform, regardless of their actual capabilities – the stereotype-threat effect (Steele & Aronson, 1995).

**Climate communicates power dynamics.** In productive classes, instructors use their authority to empower everybody to take ownership in the learning process. Conversely, if some students or groups of students feel that their perspective is not represented in the readings, or is belittled when it is voiced, they might withdraw from the class. The ultimate form of resistance for people who feel powerless in a hostile environment is the refusal to learn (Kohl, 1994).

**Climate impacts student persistence.** When the cumulative direct and indirect messages students perceive communicate that they are not as able as other students and don’t belong in the course, students are less likely to stay in the course, the major, and even in the university (Tinto, 1993).

**Strategies to create a productive and inclusive climate**

**Examine your assumptions.** It is very common for instructors to assume that student share their own background, but this is not necessarily so. Do you find yourself addressing students as if they all share your religion, sexual orientation, or economic class?

**Learn and use students’ names.** Even in large classes, you can start with a few names and build up. At the very least, let students know you are making an effort to do so.

**Model inclusive language.** For instance, avoid using masculine pronouns for both males and females. When you use American idioms, explain them for the benefit of non-native English speakers.

**Use multiple and diverse examples.** Multiple examples increase the likelihood of students relating to at least one of them. Take care to include examples that speak to both sexes and that work across cultures.

**Establish ground rules for interaction.** This will assure that other students are also being inclusive and respectful. In order to generate maximal buy-in into the ground rules, you can involve the students in the process of establishing them. You will still need to enforce the ground rules and correct students for the occasional non-inclusive or disrespectful comment.

**Examine your curriculum.** Are certain perspectives systematically not represented in your course materials (e.g., a course on family focusing only on traditional families, or a course on public policy ignoring race issues)? Neglecting some issues implies a value judgment (hooks 1994), which can alienate certain groups of students.

**Strive to be fair.** Especially in courses with multiple sections and TAs, it is crucial to be perceived as fair, both in grading and in implementing course policies. Perceptions of unfairness can induce feelings of learned helplessness (Peterson et al., 1995), which are highly demotivating for students.

**Be mindful of low ability cues.** In their efforts to help students, some instructors inadvertently send mixed messages (e.g., “Sure, I’ll be happy to help you with this, I know girls have trouble with math”). These cues encourage attributions focused on permanent, uncontrollable causes, which diminish students’ self-efficacy. Instead, it is more productive to focus on controllable causes, such as effort.
Provide accommodations for students with disabilities. Instructors are required by law to provide reasonable accommodations to students with documented disabilities. Contact Office of Disabled Student Services for more information.

Don’t ask people to speak for an entire group. Minority students often report either feeling invisible in class, or sticking out like a sore thumb as the token minority. This experience is heightened when they are addressed as spokespeople for their whole group, and can have implications on performance (Lord & Saenz, 1985).

Practice inclusive classroom behaviors. Of course we as educators are not out to intentionally exclude anybody from the educational experience. However, many researchers report small unconscious behaviors – “micro-inequities” – that certain student groups experience repeatedly. For instance, women report that instructors tend to interrupt them more often than men, ignore them more often, call on them less often, ask them more recall questions and less analytical questions, acknowledge their contributions less, and build on their answers less (Hall, 1982). These micro-inequities add up and have a highly discouraging effect on those students.

References

Consider Your Audience

Who are your students?

What are their motivations for taking your course?

What background knowledge and skills can you expect them to have?

The success of your course will be determined not only by how well it meets your department’s goals, or even your personal teaching goals, but by how well you manage to match your course content to the goals and backgrounds of your students. Many things influence who shows up in your classroom the first day and how they feel about being there. Some simple factors include the timing of the course (early morning versus late afternoon, fall versus spring), the subject matter and level of the course, and whether it is required or elective.

To get a general sense of your likely audience, talk to students majoring in your field and instructors who have recently taught a course like yours. Also, try remembering yourself at your students’ stage in life: what your priorities were, what interests and life constraints conflicted with your academic priorities, and what you needed from an instructor. (Remember, though, that since you chose an academic career, you were not a “typical” undergraduate. Don’t rely too much on your own undergraduate experiences when judging the needs of today’s students.) By considering many factors, you can begin to imagine the needs and possible attitudes of your students.

Of these factors, the most fundamental consideration is the academic stage of your students. Are you ushering students into a field or putting the finishing touches on their professional training? Can you trust that the students in your class have at least a basic interest in the course material, or are you still trying to convince a group of ambivalent but curious students of the merits of your field? Most obviously, graduate and undergraduate students differ in motivation, background, and habits.

Graduate students are animated by their career goals. As a group, they (usually) share a background of prerequisites for the field and are familiar with its vocabulary. They are used to working independently and contributing to the course. Advanced majors in your field may resemble graduate students in these attributes.

A roomful of undergraduates, on the other hand, provides some interesting challenges. Some students are investigating various careers; your course may influence whether someone decides to become a chemist, a linguist, or an anthropologist. In introductory and lecture courses, it is especially important to communicate the excitement of your subject and its relevance to students’ goals and the world at large. This is particularly true if students tend to view your course mainly as a stepping stone to other courses. In this case, put particular effort
CSUDH students: Who are they?

into interesting examples and applications, and create an environment where students feel both empowered and responsible for their learning.

Students’ backgrounds may vary widely in early stage courses. You will need to teach the language of your field, its methods, and approaches as you go along. It may become important to become acquainted with tutoring resources at CSUDH that can help individual students fill in any gaps in background knowledge and training. With a group of students that varies widely in motivation and background, you may also want to collect work or schedule tests more frequently, to gauge the progress of their learning.

Students can always surprise you! It is important, in any case, to continue assessing your audience’s needs throughout the term—you will be rewarded for your efforts with increased student motivation, interest, and performance.

Source: Center for Teaching and Learning. Stanford University
Dear Instructor,

This template is in response to requests for a guide for organizing the required elements of the Syllabus Content policy (AAAP016.001, March 20, 2006). Please note that as stated in the policy, “Course information shall include at least the following items…” (see below). For your reference and review, a link to the policy is:

http://www.csudh.edu/academicaffairs/AAPM/PolicyDetail.cfm?recordID=AAAP016.001

USLOAC (University Student Learning Outcomes Assessment Committee) is pleased to offer this template designed to suggest how a typical syllabus may be user friendly while incorporating the required items, enclosed in quotes, on the Syllabus Content policy. Italics indicate suggested headings for your syllabus.

Course title and unit value
(use the information in the current catalog)

Name and “availability of the instructor outside of class, including office hours and office telephone number” (include your email address, if appropriate) Instructor Information

Course description and “Prerequisites for the course” (the course description, current catalog only and/or your elaboration, sets the stage for the student) Course Description; Prerequisites

“Required texts and other materials” (be clear and give complete information) Required Texts; Other Required Materials (as appropriate)

“Student learning outcomes for the course” (course-level student learning outcomes/objectives define the knowledge, skills, and affinities expected by you of the student at the conclusion of the course. Student learning outcomes/objectives are learner-centered and measurable). For further information or assistance with course-level student learning outcomes/objectives, contact USLOAC in the Center for Teaching and Learning (X3339). Student Learning Outcomes or Student Learning Objectives

“Course requirements, including readings and assignments, exams and other types of assessments of student learning” (be explicit about this information including date due, # of points and/or % of grade assigned, expectations regarding the assignment/assessment, etc.). Course-level assessment(s) are in keeping with the course-level stated student learning outcomes/objectives. For further information or assistance with course-level assessment(s) contact USLOAC. Assessment

“Attendance requirements”, “Policy on due dates and make-up work” (instructor statements on these items are necessary to avoid misunderstanding or ambiguity in your course) Attendance Requirements; Policy on due dates and make-up work
Course expectations (although not a requirement in the policy, many instructors have expectations of student behavior such as cell phone use during class, tardiness, etc.) This information would seem to logically follow the sections on “Attendance Requirements; and Policy on due dates and make-up work”. Course Expectations

“The instructor’s grading policy” (be explicit about the grading system you are using in this course; university letter grading uses plus and minuses except A+ and D-, follow with your allocated percentage distribution, eg. A=96-100%, etc.; CR/NC, identify what constitutes CR, eg. CR = 80% and above; grading on the curve, include a statement to this effect; other, include a statement regarding your policy) Grading Policy

“…specific reference to the” [current] “University Catalog’s statements on Academic Integrity and Plagiarism, as well as an explanation of the expectations of the course as they relate to academic integrity” (do not reference specific catalog page numbers as they may change depending on hard or web copies of the current catalog. Also, check with your chair to see if there is a standard statement used by the faculty in your department or program) Academic Integrity and Plagiarism

“A statement on the policy for accommodating students with disabilities, including a reference to Disabled Student Services (DSS)” (do not reference specific catalog page numbers, but you must include in your statement the current catalog telephone and campus address for DSS. Also, check with your chair to see if there is a standard statement regarding DSS used by the faculty in your department or program) Statement on Disabled Student Services

“Schedule of examinations” (include in your course schedule the following information: Week # and class session (if needed because more than one class session per week) eg. Week one, first class session (specific dates and/or days do not easily transfer from one semester or year to the next) Topics, Assignment(s), and Assessment(s) eg. midterm/final exam, project due, paper and/or oral presentation due, etc.) Course Schedule

We hope this is a helpful resource to faculty developing or modifying syllabi. If you have any questions or need additional assistance, please contact Cathy Jacobs at (310) 243-3973 or email cjacobs@csudh.edu.
Course Design

Whether designing a new course or preparing to adopt a standardized curriculum, you will find it helpful to begin your course preparation by clearly defining what you expect your students to have learned by the end of your course or section. You can then put together course materials, or select new ways of presenting course materials, that serve the learning outcomes you have chosen.

Consider the topic and level of your course, and ask yourself:

• What is the most important information students should learn and remember from this course (facts and other kinds of core knowledge)?

• What are the most important ideas that students should understand after taking this course (theories, approaches, perspectives, and other broad themes in your field)?

• What are the most important skills that students should develop in this course (laboratory skills, problem-solving skills, creative skills, writing skills, etc.)?

• What attitudes you want students to develop as a result of their course, such as love of the field; a critical, questioning stance toward texts; or an appreciation of cultural differences.

Be as specific as possible. For example, an instructor of modern Chinese history might identify the timeline of key historical events and periods as important information, competing theories about the causes of the Chinese Revolution as important ideas, and the ability to compare modern Chinese history to other significant historical trends as an important skill. An instructor of product design might identify fundamentals of descriptive geometry as important information, the relationship between form and function as an important idea, and the use of a design software program as an important skill. Different courses may emphasize one type of learning outcome more than others; you may have an enormous amount of facts to cover in an introductory course or you may find yourself teaching a highly skills-specific course for advanced students. However, most courses will have a combination of all four kinds of outcomes.

If you get lost in a sea of possible learning outcomes and find yourself overwhelmed, consider dividing the outcomes into those that are essential (students must reach these goals in order to continue successfully in their program) and those that are desirable. To decide which outcomes are essential, you can talk to upper-division students and to faculty members whose courses follow yours in a major. If the curriculum is already established, use previous syllabi or talk to previous instructors to find out what has historically been considered essential in the course.
Desirable outcomes, on the other hand, reflect your idealistic side: What are your dream learning outcomes for a student taking this course? Do you care more about breadth of knowledge, imagining your students fielding a broad variety of questions on your field (as an instructor of an introductory course might)? Or do you care more about depth of knowledge, imagining your students deep in the trenches of a specific research problem or creative project (as an instructor of a seminar might)? What kinds of intellectual and practical challenges would your students ideally be able to face head-on and conquer? For a professor of any science, a desirable learning outcome might be the ability to design, run, and analyze an innovative study; for a professor of business, it might be the ability to put together a business plan that a potential investor would get excited about.

You will, of course, need to take into account such practical considerations as what you can realistically fit into a quarter, what your department expects from your course, whether or not it is part of a sequence, how prepared and committed your students are, what resources are available for the classroom and students, and your own strengths and experience as a teacher. For these reasons, it may take several rounds of teaching and revising a course before you feel confident about your ability to achieve all of your desirable goals. Give yourself room to grow. Emphasize the essential learning outcomes first, with an eye to facilitating desired learning whenever possible.

Translating Goals into Course Content

Once you have identified the most important learning outcomes for your course, you are ready to assemble the means that will best support your goals. In doing so, you will want to focus on three questions:

• What materials (textbooks, articles, lecture content) do students need access to in order to achieve your learning outcomes? Choose your reading and resource list based on the quality of the information, ideas, and training provided, and use classroom time to fill in the gaps between your goals and the content of those readings/resources.

• What assignments (papers, problem sets, projects) and experiences (discussions, labs, field trips, collaborative activities) will give students the opportunity to reinforce the information and ideas of the course, as well as practice key skills?

• What should students be able to do to demonstrate that they have met these key learning goals? The answer(s) to this question will be the basis for your grading structure, as well as the format and content of graded exams, homework, and projects. For example, if one of your essential learning outcomes is improved analytical thinking, make sure that your exams and assignments require it.
Course design and Student centered learning

The next step is to select the specific readings, lecture and discussion content, class activities, practice assignments, and graded assignments that will make up your course. You can weed through the course materials already prepared by previous instructors of similar courses, with an eye for those materials that best meet your goals. If you are lucky (and brave!) enough to be embarking on a new course, you have the freedom and challenge of building your course materials from scratch. The next section provides some practical advice on meeting this particular challenge.

Course Outline

The next step is to develop your course outline. Your previous work, defining your teaching goals and the most important learning outcomes for your course, will serve as a guide as you make specific decisions about course materials and content.

Choose the Readings

A major decision will be whether or not to adopt a general text. If you are like most teachers, it is unlikely that any one book will meet all your needs. However, most students prefer some textbook that integrates the course for them, as long as it is reasonably well-written. One solution is to make the students responsible for mastering the text, and then use your lectures to present alternative points of view or to fill in the textbook’s gaps. If you don’t choose a general textbook, it’s even more important to consider how your readings relate to each other and your lectures. Again, make sure your students understand how to integrate multiple readings and lecture content.

Beyond the required books, when you give a list of additional readings, indicate which books students can consult for help in doing projects or solving problems, which works you suggest they refer to when writing a paper, and which resources can benefit students who lack certain background knowledge or who wish to pursue a favorite subject further.

Create an Order for Your Course Topics

You probably have a good sense of the major topics that you need to cover. However, to be thorough, you can check the major textbooks in your field, the concerns of the leading journals, and the syllabi of your colleagues. A system may immediately suggest itself—such as proceeding chronologically or using the order of the textbook you adopt. You may also consider a meaningful order of course topics that builds from the abstract to the specific, or that alternates between theory and application, or that groups course topics by the kinds of approaches, skills, or methods they require.
Course design and Student centered learning

Whatever order you choose, be sure that student learning builds on itself. For example, you would not expect students to synthesize alternative viewpoints until they were first able to compare viewpoints and you would not expect them to compare viewpoints until they had first learned how to analyze an argument. For this reason, the order of your topics should complement and support the development of the key ideas and skills that students are working to master.

Design Class Activities

How exactly do you want to spend class time? Will you lecture throughout, or devote considerable time to other activities? You may want to build in other activities that require interaction with the class. Does it make sense to include short discussion periods in every class, or to schedule occasional days of discussion only? Are there guest lecturers or field experiences that could provide special insight into a topic? Will role-playing help students understand certain topics? Is there a film that does a particularly good job of covering a topic? Also consider delegating a certain amount of content coverage to peer instruction, in which students—through careful group research and presentations—teach their classmates. Studies have shown that students achieve the highest level of information retention and comprehension when they have taught the material themselves. Explain to students the value of such active engagement with the course content; you may also want to devote some class time and office hours to guiding students in their explorations and preparing them for peer instruction.

Plan the Course Calendar

Finally, of course, you will want to study the academic calendar and actually decide on a week-by-week sequencing of topics, readings, assignments, and exams. Check carefully for school holidays or other events (like “Big Game”) that might affect student attendance or ability to complete assignments. Consider leaving some flexibility in your outline for student feedback (e.g., on course topics, reading load, and coursework difficulty), as well as unforeseen complications (e.g., having to reschedule an exam if the majority of your students have another exam that day).

Get Feedback

Once you have your course outline have a colleague look it over and react. Is it meaty—is there enough material to challenge the students intellectually and sustain their interest? Is it flexible—if students make suggestions, do you have room to incorporate them? Is it coherent—is there a recognizable connection between the lectures, readings, and assignments? Do the major themes of the course stand out? Is there a
Course design and Student centered learning

sense of intellectual movement—will students emerge with not only more information, but also new skills and capabilities?

Syllabus

Once your course outline is finished, you can prepare a version of it for your students. Your syllabus is both an invitation to students interested in your course and a contract between you and the student. The link below provides information about the minimum information you will need for the syllabus. You may also consult with your department chair for “master course outlines” that guide the preparation of course syllabus.

http://www.csudh.edu/academicaffairs/sloa/documents/syllabus_tutorial/course_requirements.htm

http://www.csudh.edu/actech/tutorials/CreateSyllabus.pdf

In addition, you can attract or retain interested students by listing more specific details of the course, including the titles or topics of each lecture. Consider framing each lecture in terms of questions that the lecture will answer, for example: “What does it take to win a Nobel Prize these days?” (a lecture on the modern history of science)

If you are interested in going beyond the minimum requirements for your syllabus, consider the “learning centered” model for syllabus design. A learning-centered syllabus not only outlines the instructor’s goals and objectives for the course, but also guides students to take responsibility for their own learning (Grunert, 1997). For example, a learning-centered syllabus invites students to:

• Identify their own goals for the course: What are they hoping to learn? How does this course fit into their academic plan of study, their professional goals, or their personal goals?

• Contribute to decisions about course content and activities. You might do this by offering a choice of reading materials for some topics, a vote on supplemental lecture topics, or options for final project topics. • Take responsibility for their own learning. You can facilitate this by providing students with information about university resources (e.g., academic coaching and tutoring services) as well as general study tips, a list of supplemental resources for the course, and suggestions for excelling in your particular course.

In these ways, the learning-centered syllabus becomes a guide for students, rather than just a summary of course details.

Adapted from materials: Center for Teaching and Learning, Stanford University 2012
Principles of Learning

The following list presents the basic principles that underlie effective learning. These principles are distilled from research from a variety of disciplines.

1. Students’ prior knowledge can help or hinder learning.

Students come into our courses with knowledge, beliefs, and attitudes gained in other courses and through daily life. As students bring this knowledge to bear in our classrooms, it influences how they filter and interpret what they are learning. If students’ prior knowledge is robust and accurate and activated at the appropriate time, it provides a strong foundation for building new knowledge. However, when knowledge is inert, insufficient for the task, activated inappropriately, or inaccurate, it can interfere with or impede new learning.

2. How students organize knowledge influences how they learn and apply what they know.

Students naturally make connections between pieces of knowledge. When those connections form knowledge structures that are accurately and meaningfully organized, students are better able to retrieve and apply their knowledge effectively and efficiently. In contrast, when knowledge is connected in inaccurate or random ways, students can fail to retrieve or apply it appropriately.

3. Students’ motivation determines, directs, and sustains what they do to learn.

As students enter college and gain greater autonomy over what, when, and how they study and learn, motivation plays a critical role in guiding the direction, intensity, persistence, and quality of the learning behaviors in which they engage. When students find positive value in a learning goal or activity, expect to successfully achieve a desired learning outcome, and perceive support from their environment, they are likely to be strongly motivated to learn.

4. To develop mastery, students must acquire component skills, practice integrating them, and know when to apply what they have learned.

Students must develop not only the component skills and knowledge necessary to perform complex tasks, they must also practice combining and integrating them to develop greater fluency and automaticity. Finally, students must learn when and how to apply the skills and knowledge they learn. As instructors, it is important that we develop conscious awareness of these elements of mastery so as to help our students learn more effectively.
5. **Goal-directed practice coupled with targeted feedback enhances the quality of students’ learning.**

Learning and performance are best fostered when students engage in practice that focuses on a specific goal or criterion, targets an appropriate level of challenge, and is of sufficient quantity and frequency to meet the performance criteria. Practice must be coupled with feedback that explicitly communicates about some aspect(s) of students’ performance relative to specific target criteria, provides information to help students progress in meeting those criteria, and is given at a time and frequency that allows it to be useful.

6. **Students’ current level of development interacts with the social, emotional, and intellectual climate of the course to impact learning.**

Students are not only intellectual but also social and emotional beings, and they are still developing the full range of intellectual, social, and emotional skills. While we cannot control the developmental process, we can shape the intellectual, social, emotional, and physical aspects of classroom climate in developmentally appropriate ways. In fact, many studies have shown that the climate we create has implications for our students. A negative climate may impede learning and performance, but a positive climate can energize students’ learning.

7. **To become self-directed learners, students must learn to monitor and adjust their approaches to learning.**

Learners may engage in a variety of metacognitive processes to monitor and control their learning—assessing the task at hand, evaluating their own strengths and weaknesses, planning their approach, applying and monitoring various strategies, and reflecting on the degree to which their current approach is working. Unfortunately, students tend not to engage in these processes naturally. When students develop the skills to engage these processes, they gain intellectual habits that not only improve their performance but also their effectiveness as learners.

**Bibliography**

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Adaption of materials from: Enhancing Education, Carnegie Mellon
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