Writing effective student learning outcomes

Attached are three excerpts and sources to help you to develop effective and assessable learning outcomes. Also attached are two syllabi templates: the first is for face to face classes and the second is for on-line courses.

1. Bloom’s Taxonomy can provide a guide regarding levels of ability. The domains build from the bottom up. 100 and 200 level courses might have outcomes at the lower end of the taxonomy (e.g., use verbs that relate to Remembering and Understanding). Learning outcomes for 300 and 400 level courses might use the verbs associated with Applying, Analyzing, Evaluating, and Creating.

The attachment includes Bloom’s taxonomy and possible verbs for each level. For additional info, please refer to http://www.nwlink.com/~donclark/hrd/bloom.html

Another reference for verbs related to Bloom’s Taxonomy can be found at: http://www.k-state.edu/assessment/slo/verbs.htm

2. Student learning outcomes should be developed for the institution, department/major, and course levels. The second (brief) attachment addresses how to differentiate outcomes at each level. It is an excerpt from a book that was widely distributed on campus in the fall 2011-spring 2012:


3. The third document provides tips and samples of student learning outcomes for courses. It is excerpted from student learning outcomes and assessment information at Texas Tech University. You can access the complete document through the link below:

4. Face to face course template (thanks to CoBA faculty)

5. On-line course template (thanks to Darla Ausel)
### Bloom's Revised Taxonomy

<table>
<thead>
<tr>
<th>Original Domain</th>
<th>New Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation</td>
<td>Creating</td>
</tr>
<tr>
<td>Synthesis</td>
<td>Evaluating</td>
</tr>
<tr>
<td>Analysis</td>
<td>Analyzing</td>
</tr>
<tr>
<td>Application</td>
<td>Applying</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Understanding</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Remembering</td>
</tr>
</tbody>
</table>

**Category**

**Remembering:** Recall previous learned information.

**Understanding:** Comprehending the meaning, translation, interpolation, and interpretation of instructions and problems. State a problem in one's own words.

**Example and Key Words (verbs)**

**Examples:** Recite a policy. Quote prices from memory to a customer. Knows the safety rules.

**Key Words:** defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states.

**Examples:** Rewrites the principles of test writing. Explain in one's own words the steps for performing a complex task. Translates an equation into a computer spreadsheet.

**Key Words:** comprehends, converts, defends, distinguishes, estimates, explains, extends, generalizes, gives an example, infers, interprets, paraphrases, predicts, rewrites, summarizes, translates.
<table>
<thead>
<tr>
<th>Applying:</th>
<th>Use a concept in a new situation or unprompted use of an abstraction. Applies what was learned in the classroom into novel situations in the workplace.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples:</td>
<td>Use a manual to calculate an employee’s vacation time. Apply laws of statistics to evaluate the reliability of a written test.</td>
</tr>
<tr>
<td>Key Words:</td>
<td>applies, changes, computes, constructs, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Analyzing:</th>
<th>Separates material or concepts into component parts so that its organizational structure may be understood. Distinguishes between facts and inferences.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples:</td>
<td>Troubleshoot a piece of equipment by using logical deduction. Recognize logical fallacies in reasoning. Gathers information from a department and selects the required tasks for training.</td>
</tr>
<tr>
<td>Key Words:</td>
<td>analyzes, breaks down, compares, contrasts, diagrams, deconstructs, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, relates, selects, separates.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Evaluating:</th>
<th>Make judgments about the value of ideas or materials.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples:</td>
<td>Select the most effective solution. Hire the most qualified candidate. Explain and justify a new budget.</td>
</tr>
<tr>
<td>Key Words:</td>
<td>appraises, compares, concludes, contrasts, criticizes, critiques, defends, describes, discriminates, evaluates, explains, interprets, justifies, relates, summarizes, supports.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Creating:</th>
<th>Builds a structure or pattern from diverse elements. Put parts together to form a whole, with emphasis on creating a new meaning or structure.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples:</td>
<td>Write a company operations or process manual. Design a machine to perform a specific task. Integrates training from several sources to solve a problem. Revises and process to improve the outcome.</td>
</tr>
<tr>
<td>Key Words:</td>
<td>categorizes, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes.</td>
</tr>
</tbody>
</table>
Levels of Generality

You will state the goals at various levels of generality. For example:

- **Institutional level.** Students will communicate effectively in writing to a variety of audiences.
- **Department/school/college level.** Students who complete the business major will communicate effectively to professional and lay audiences, using the common business formats.
- **Course level.** When they complete this finance course, students will be able to write such-and-such kinds of financial reports.

Subsequent chapters discuss goals for the institution as a whole (Chapter Two), for departments (Chapter Three), and for general education (Chapter Four).

(p.14)

TIPS FOR DEVELOPING COURSE-LEVEL STUDENT LEARNING OUTCOMES
(excerpted from Texas Tech University)

- Limit the course-level expected learning outcomes to 5 or fewer statements for the entire course (more detailed outcomes can be developed for individual units, assignments, chapters, etc.).

- Focus on overarching or general knowledge and/or skills (rather than small or trivial details).

- Focus on knowledge and skills that are central to the course topic and/or discipline.

- Create statements that are student-centered rather than faculty-centered (e.g., "upon completion of this course students will be able to list the names of the 50 states" versus "one objective of this course is to teach the names of the 50 states").

- Focus on the learning that results from the course rather than describing activities or lessons in the course.

- Incorporate or reflect the institutional and departmental missions.

- Incorporate various ways for students to show success (outlining, describing, modeling, depicting, etc.) rather than using a single statement such as "at the end of the course, students will know _______ " as the stem for each expected outcome statement.

SAMPLE STUDENT LEARNING OUTCOMES

United States History Upon completion of this course, the students will be able to:
Describe the relationship between the past and the present
Write an essay defining a pluralistic society and its relationship to our democratic principles
Outline the structure of the Constitution of the U.S.
Identity and define the social, political, and economic institutions that impact the modern society
Describe the major events and individuals associated with the history of the United States.

Introduction to Business At the end of the course, students should be able to:
Identify and describe current domestic and international business trends
Explain how proper business management benefits consumers and employees
Define the basic rules related to human resources management
Compare and contrast the different types of business ownership
Evaluate and classify various marketing strategies
Summarize how technology can help a business manage information

Music Appreciation/History Course (with a focus on Western music) After completing this course, students will be able to:
Identify the basic elements of Western music
List the instruments associated with Western music
Describe the distinct style periods of Western music
Recognize selected examples of Western music aurally
Discriminate among different Western music styles
Explain music's place in relation to other art forms
General Psychology Students who complete this course should be able to:
Identify and define basic terms and concepts which are needed for advanced courses in psychology
Outline the scientific method as it is used by psychologists
Apply the principles of psychology to practical problems
Compare and contrast the multiple determinants of behavior (environmental, biological, and genetic)
Analyze current research findings in the areas of physiological psychology, perception, learning, abnormal, and social psychology
Distinguish between healthy and unhealthy physical, mental, and emotional patterns

Plant and Soil Sciences At the end of the course, the student should be able to:
Label the parts of a plant
Define the terms used in plant growth and reproduction
Explain transpiration, respiration and photosynthesis
Calculate the germination rates of various seeds
Identify soil texture and structure from soil samples
List the primary, secondary and micro nutrients present in soil
Identify and describe land capability classes and their uses

General Nutrition Upon completion of this course students will be able to:
Describe the digestive system
Explain the steps involved in metabolism and the ways energy is derived from carbohydrate, fat, and protein
Design individualized eating plans utilizing diet planning principles and the Food Guide Pyramid
State the benefits associated with physical activity and the components of a sound fitness or health program
Describe how nutrition and lifestyle choices impact the life
SAMPLE COURSE SYLLABUS
Clarion University of Pennsylvania
College of YYYY
Department XXX

Course Prefix, Number, Section, & Title:

Course Prerequisites:

Number of Credits:

Semester/Session:

Meeting Days, Time, Place:

Professor Name: 
Office Number: 
Telephone Number: 
E-mail Address: 
Website: URL

Office Hours: Days, times and by appointment
[Note: All full-time faculty members are required to hold a minimum of 5 office hours per week on no fewer than three (3) different days at such times as will accommodate the needs of the students. See CBA, Article 23. Section 1.c.]

Course Description: Official course description from the catalog
[Note: In addition to the official catalog description, some faculty members may wish to provide a more detailed description.]

Course Student Learning Outcomes: State course student learning outcomes (relevant program, and/or department-specific Student Learning Outcomes), as well as how those outcomes will be assessed. Here are three examples:

Program Student Learning Outcome 3.0: Students will demonstrate that they can communicate effectively orally and in written forms. 
How assessed: Students will be required to complete written assignments for grading, complete written examinations, and submit a comprehensive written financial plan. This plan must also be presented orally to the class and instructor for critique and grading.

Program Student Learning Outcome 4.0: Students will demonstrate analytical thinking skills through the (4.1) interpretation of evidence, (4.2) identification and evaluation of points of view, and the (4.3) formulation of warranted, non-fallacious conclusions. 
How assessed: Students will be required to analyze and interpret financial data, calculate investment returns and security prices, and compute complex time value of money calculations. They will also be required to analyze and critique solutions prepared by other students.

Program Student Learning Outcome 6.0: Students will be able to Demonstrate Effective Use of Technology and Data Analysis through the (6.1) communication and presentation technologies used in the business environment and the (6.3) understanding of data analysis and its use in business decision making.
How assessed: Students will be required to analyze and interpret financial data and use their results to develop a comprehensive financial plan for a fictitious family. In small groups, they will present their findings using a variety of modern communication and presentation technologies.

Additional Core Competencies: Include unit/chapter in which core competencies are found

Required Text and Materials: Required textbooks, readings, software and related materials

Suggested Reading: Readings that might be helpful for the class

Flags: Note if the course qualifies as a writing intensive (W), first year values (V), second year values (S), quantitative reasoning (Q), and/or information literacy flag. [No course is permitted to have more than two flags.]

Class Activities/Requirements: Homework, writing assignments, projects, quizzes, exams, presentations, class participation

Grade Components & Criteria: Assignments and their allotted points (or percentages), including class participation; grading scale, e.g., A = 90-100, B = 80-89, C = 70-79, etc…

Grading Rubrics:

Course Outline & Schedule: Summarize the material covered in the course, possibly by class times/chapter with daily or weekly agenda and notes on the assignments with due dates for assignments and how they will be graded.

Attendance & Tardiness: Policy on attendance/absenteeism and tardiness

Smart Phones & Classroom Etiquette: Policy on the use of cell phones, texting, and classroom etiquette

Make-up Exam Policy: Policy on making up exams

Academic Honesty: It is recommended that the University Policy as found in the Student Rights, Regulations, and Procedures Handbook be cited. Here’s an example of a statement related on academic honesty from a colleague’s syllabus:

Academic dishonesty will not be tolerated in this class. Cheating on quizzes, examinations, and other forms of dishonesty will be dealt with in a serious and formal manner. The penalty for academic dishonesty in this class will be course failure. That is, any student who is found to be cheating or engaged in other academically dishonest behavior will be failed for this course for this semester. Course withdrawals to avoid such a failure will not be permitted.

Integrity (Honor) Pledge: It is highly recommended that students be required to sign their names on every examination attesting to the following: I have neither given nor received any unauthorized aid, nor have I witnessed a violation of the honor code.

Special Services: If you are a student with a documented disability and require accommodations, you must be registered with the University’s Office of Disability Support Services (DSS). Students must provide current documentation to DSS which identifies their disability and need for accommodation(s). Students must meet with DSS to discuss requested accommodations. Students must provide instructors with appropriate notification from DSS of the approved accommodation as early in the semester as possible. You may learn more about the services that the Office of Disability Support Services offers by visiting its web page at http://www.clarion.edu/1019/.
Online Course Syllabus Template
Developed by the Learning Technology Center, Clarion University, 2012

Instructions for using this Course Syllabus Template

The syllabus is broken into sections, which can be rearranged, removed, or modified to best fit your course and teaching style.

The syllabus includes references to, and instructions for accessing, the various tools included in D2L that are commonly used by instructors.

Adjust descriptions of activities and learning outcomes to fit your course.

- Look for green text used as a placeholder, to indicate information needed, text you should change, or notes. Be sure to delete these notes before finalizing your syllabus and change the text color to black.

- Be sure to remove references to tools, activities, or outcomes that you do not plan to use in your course.

- The syllabus includes some common language to describe campus policies and services to serve as a guideline for you. Be sure to read these sections and change language to fit your course needs.

- Use Find/Replace to quickly replace items such as “Course Name” and Department/College.

- If you need assistance modifying the syllabus template, please contact the Learning Technology Center, Center for Computing Services at 814-393-1848.

Delete the first page from your finished syllabus before distribution.
Course Name
Syllabus
Semester

Course Information

Instructor Information

Instructor: Name
Office: Location
Office Hours: Times & Days (Note: if online, explain how to access)
Office Telephone: Phone Number
E-mail: University email address

Course Description

Enter catalog number, title, section number, and description.

Prerequisite
Enter prerequisite information.

Textbook & Course Materials

Required Text
List required course textbooks. Include detail such as full name of textbook, author, edition, ISBN, description (if desired), and where it can be purchased. If a required text is available online, indicate where it can be accessed.

Recommended Texts & Other Readings
List other readings available and how/where to access them.
Include a general statement such as
Other readings will be made available within your D2L course site.
Course Requirements

Internet connection (DSL, LAN, or cable connection desirable)
Access to D2L

List other tools, resources, and materials needed by the student for success in the course.

Course Structure

This course will be delivered entirely online through the Desire2Learn (D2L) learning management system. You will use your Clarion University account to login to the course from the D2L login page (http://www.clarion.edu/d2l).

In D2L, you will access online lessons, course materials, and resources. At designated times throughout the semester, we will participate in a blend of self-paced and group-paced activities using D2L and alternative Internet-based technologies. Activities will consist of chat, blogs, discussion forums, email, journaling, blogging, wikis, and web posting. Add and remove listed activities as appropriate to your course.

Course Week starts on Monday and ends on Sunday.
Weekly course content will be released for viewing [i.e. Fridays by 1:00pm.]

D2L Access

This course will be delivered fully online through Desire2Learn. To access this course on D2L you will need access to the Internet and a supported Web browser (Internet Explorer, Firefox, Safari). To ensure that you are using a supported browser and have required plug-ins please run the Check Browser from your D2L course.

Technical Assistance

If you need technical assistance at any time during the course or to report a problem with D2L you can:

Visit the D2L Student Orientation/Documentation
Visit the D2L Student FAQ’s Web Page
Contact 24x7 support or submit a helpdesk ticket

Disclaimer: This syllabus, along with course assignments and due dates, are subject to change. It is the student’s responsibility to check D2L for corrections or updates to the
syllabus. Any changes will be clearly noted in course announcement or through D2L email.
Course Learning Outcomes

Provide a course summary.

List the primary learning outcomes for this course. Use action verbs to describe what students and you will accomplish through this course. A bulleted list is a good way to display these objectives as shown below:

• Outcome
• Outcome
• Outcome

You will meet the outcomes listed above through a combination of the following learning activities in this course:

Provide instructions to students on how they are expected to meet the learning outcomes for the course. For example: Will most outcomes be met through examination? Or through discussion participation? Or through projects?

• Discuss ...
• Complete ...
• Participate ...
Course Outline

Important Note: Refer to the course calendar for semester schedule dates. Activity and assignment details will be explained in detail within each week’s corresponding learning module. If you have any questions, please contact your instructor.

Week 01: Topic
  o Details ...

Week 02: Topic
  o Details ...

Week 03: Topic
  o Details ...

Week 04: Topic
  o Details ...

Week 05: Topic
  o Details ...

ALTERNATE FORMAT:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Readings</th>
<th>Activities</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
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<td>4</td>
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</tbody>
</table>

Note about calendar/schedule. While it is important to clearly indicate the schedule for your course, there are many places where you may do this. You may include a topic outline/schedule (like the examples shown above) in your syllabus, make a separate link to a schedule document in your D2L course, or use the D2L calendar tool. Regardless of which you choose, be consistent, and keep your calendar up-to-date to help students follow along, reduce confusion, and emphasize time on task.
Grading Policy

Graded Course Activities

Visit each **Weekly Module** (or identify specific module title such as ‘Assignments Module’) in D2L for details about each assignment listed below. Click on **Quizzes** to access quizzes and exams. Links to quizzes will also be available from within weekly modules.

<table>
<thead>
<tr>
<th>Points</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td>Item 1 (List all activities, tests, etc. that will determine the students’ final grade)</td>
</tr>
<tr>
<td>#</td>
<td>Item 2</td>
</tr>
<tr>
<td>100</td>
<td>Total Points Possible</td>
</tr>
</tbody>
</table>

**Late Work Policy**

**Example:** Be sure to pay close attention to deadlines—there will be no make up assignments or quizzes, or late work accepted without a serious and compelling reason and instructor approval.

**Viewing Grades in D2L**

Points you receive for graded activities will be posted to the D2L Grades area. Click on the Grades link on the top navigation bar to view your points.

Include a statement about the timeframe of when to look for grades. **Example:** Your instructor will update the online grades each time a grading session has been complete—typically X days following the completion of an activity. A News item will be posted on the course homepage to let you know grades are completed and available for viewing and feedback.

**Letter Grade Assignment**

Include an explanation between the relationship of points earned and final letter grade. See [http://www.clarion.edu/6906/#Instructor](http://www.clarion.edu/6906/#Instructor) for information on the policy for posting of grades. **Example:** Final grades assigned for this course will be based on the percentage of total points earned and are assigned as follows:
<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Percentage</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90-100%</td>
<td>Excellent Work</td>
</tr>
<tr>
<td>B</td>
<td>80-89%</td>
<td>Good Work</td>
</tr>
<tr>
<td>C</td>
<td>70-79%</td>
<td>Average Work</td>
</tr>
<tr>
<td>D</td>
<td>60-69%</td>
<td>Poor Work</td>
</tr>
<tr>
<td>F</td>
<td>0-59%</td>
<td>Failing Work</td>
</tr>
</tbody>
</table>
Course Policies

Participation/Attendance

Students are expected to participate in all online activities as listed in the course content. You should plan to participate by logging on a minimum of three times each week. The asynchronous (not in real-time) nature of most activities will permit you to take part at times most convenient to you. Enter specific points regarding participation policy here. If you monitor, track, and/or score student participation, explain how you will keep track and how often students should be accessing the course. If appropriate, mention that you will be using D2L tracking tool, discussions, chat sessions, and group work, to monitor their participation in the course. For online courses, policies on student participation must be clearly stated. The policy should include language regarding how attendance or lack of attendance or participation may directly impact the student’s grade. The policy may also refer students to the University policy found at www.clarion.edu/956/#Class Attendance Policy.

Contact Information and Communication

For all inquiries related to the course content and assignments, please post your questions in the discussion board called ['Instructor Questions']. This will result in a more timely response and other class members may benefit from the information. I will respond to your posting within a 24-hour period. I look forward to reading your course questions.

Remember that you always have access to the 24/7 D2L Helpdesk for technical questions.

If you have a private course issue you wish to discuss, send an email to my university email address. I will respond to your email within a 24-48 hour period.

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let me know as early as possible so that I can help you find a solution.

Complete Assignments

All assignments for this course will be submitted electronically through D2L unless otherwise instructed. Assignments must be submitted by the given deadline or special permission must be requested from instructor before the due date. Extensions will not be given beyond the next assignment except under extreme circumstances.
All discussion assignments must be completed by the assignment due date and time. Late or missing discussion assignments will affect the student’s grade.

Understand When You May Drop This Course

It is the student’s responsibility to understand when they need to consider dropping or withdrawing from a course. Refer to the Clarion University Course Schedule for dates and deadlines for registration.

Incomplete Policy

Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned if [insert condition here]. All incomplete course assignments must be completed within [insert timeframe here].

Inform Your Instructor of Any Accommodations Needed

If you are a student with a documented disability and require accommodations, you must be registered with the University's Office of Disability Support Services (DSS). Students must provide current documentation to DSS which identifies their disability and need for accommodation(s). Students must meet with DSS to discuss requested accommodations. Students must provide instructors with appropriate notification from DSS of the approved accommodation as early in the semester as possible. The Office of Disability Support Services can be reached by calling (814) 393-2095 and is located in 102 Ralston Hall.

Commit to Integrity

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom. Clarion University’s policies regarding academic honesty are strictly followed in this class.

Read more about Clarion University's Academic Honesty Policy & Procedures
Online Resources

Clarion University has many programs and resources available to assist you during your academic studies.

**Center for Computing Services**
http://www.clarion.edu/computing/

The Center for Computing Services provides student support for user accounts, passwords, email and general technology support at the university.

**Desire2Learn (D2L) Help**
http://www.clarion.edu/d2l/

All Clarion University online courses are delivered via the Desire2L (D2L) learning management system. Technical assistance with D2L is available through 24x7 phone support as well as a Student D2L Orientation site. The Orientation site provides how-to instructions and FAQs for the various tools available within the D2L learning management system.

**Office of Disability Support Services**
http://www.clarion.edu/1019/

The Office of Disability Support Services provides students with reasonable accommodations as documented through evaluations. Appropriate accommodations are individually based upon identified need.

**Online Writing Center**
http://www.clarion.edu/132501/

The Clarion University Writing Center supports all students in their efforts to become better writers and provides assistance with writing assignments in all subject areas.

**Virtual Campus**
http://www.clarion.edu/virtualcampus/

The Clarion University Virtual Campus provides various support resources for online students. Visit their website for additional resource links.

**Virtual Library**
http://www.clarion.edu/12781/

The Clarion University Virtual Library Clarion University Libraries offer services designed to support research and information needs of off-campus students and faculty. Distance education support includes reference and information assistance,
access to online resources, online tutorials, and interlibrary loan.