

General Framework: Introductory vs. Advanced Courses

Introductory-Level (100 & 200) and Advanced-Level (300, 400, 500, 600)

*Introductory-level and advanced-level refer to the **breadth and depth** of the learning that takes place in a course.*

Introductory-Level

- foundational learning;
- covers basic concepts and terminology.

Advanced-Level

- involves higher and more complex levels of knowledge and understanding than introductory or foundational learning;
- means that your student has attained a level of knowledge and understanding of a particular area or topic that goes beyond basic terminology and definitions and includes:
 - analysis
 - synthesis
 - evaluation of information related to a specific topic or area of learning.

Differences Between Introductory-Level and Advanced Level Studies

The Level of Theoretical and Application Skills Required

- *Introductory*: usually covers the basic concepts, theories, and principles of a topic.
- *Advanced*: requires analysis, synthesis and evaluation that involve higher levels of abstraction, increasing extensive knowledge, complex content, and greater methodological sophistication.

The Presumption of Prior Study

- *Introductory*: usually prerequisite learning is not required beyond reading, writing and mathematical skills expected of a high school graduate.
- *Advanced*: usually builds upon prerequisite knowledge, expanding upon fundamental concepts, theories, and principles.

The Nature of the Studies

- *Introductory*: introductory studies, surveys, or technical foundations studies.
- *Advanced*: more focused or specialized topics.

When the Studies are Usually Taken

- *Introductory*: typically found in associate degree curricula or during the first (freshman) and second (sophomore) years of a bachelor's degree — sometimes classified as lower division or lower level.
- *Advanced*: typically found in the last two years of the bachelor's degree, during the third (junior) and fourth (senior) years of a bachelor's degree — sometimes classified as upper division or upper level.

- *Graduate*: typically found in master's programs.

Adapted from guidance written by SUNY Empire State.

Guidance on Numbering Courses

(see the attached *Bloom's Taxonomy* for definition of terms in quotation marks)

100-Level Courses

These are typically introductory courses having no university-level prerequisites, often presenting basic concepts and terminology. Students in such courses are expected to operate largely at the "knowledge" and "comprehension" levels but should be provided opportunities to develop at the "application" and "analysis" levels.

Assumptions and Expectations:

1. Students possess writing ability sufficient to compose definitions, paragraphs, or essays where appropriate;
2. Students possess reading skills sufficient to comprehend college-level material in textbook and monograph form. Where specified, completion of remedial coursework should be a prerequisite.

200-Level Courses

Such courses are at an intermediate level of difficulty, and sometimes survey a subfield within a discipline. They often have a prerequisite at the 100-level. Students taking such courses should solidify their abilities at the knowledge and comprehension levels and be provided ample opportunity to develop their application and analysis skills.

Assumptions:

1. Students possess general skills such as recognition, reading, appropriate quantitative skills, and varying degrees of fluency in writing and articulateness in expression;
2. Students are acquainted with the basic language, terminology, or methodology of the subject itself;
3. Students are, in that subject, at a stage of understanding where they can progress towards significant conclusions, experiments, and/or explorations.

Expectations:

1. Students can proceed at a reasonable pace without difficulties in comprehension;
2. Students can cope with assignments involving reading and comprehending a specified amount of material and/or preparing organized papers;
3. Students will accomplish a substantial amount of work, for example: study a number of books or work through a comprehensive textbook, write a number of papers, or demonstrate an in-depth knowledge of the material covered.

300-Level and 400-Level Courses

Such courses are at an advanced-undergraduate level of difficulty, and are generally taken by majors, minors, and other students with a well-defined interest and demonstrated ability in a particular subject area.

While continuing to develop proficiency at the lower cognitive levels, 300-level courses are expected to provide students with the opportunity to operate at the “synthesis” and “evaluation” levels.

Assumptions: Students are at ease and comfortable in the field; they have acquired an adequate general knowledge in the area to pursue some study in-depth with the proper methodological tools.

Expectations:

1. Students will have completed expository writing (EN 121/131) or the equivalent;
2. Students have the ability to do research, or to obtain relevant information in the field through the proper use of libraries;
3. Students are fluent in the language of the field so as to read and analyze relevant information;
4. Students are able to combine the results of the research or the reading into cohesive statements;
5. Students are able to produce substantial work such as a paper of "term-paper" length, or a creative or experimental project.

Courses at the 400-level operate mostly at the “synthesis” and “evaluation” levels. They are often of a seminar nature, with the students taking significant responsibility for the course agenda. In particular, courses which provide students with the opportunity to perform directed research are usually at the 400-level.

Assumptions:

1. Students have completed a substantial amount of work on the 300-level.
2. Students have the capacity to work independently under the guidance or supervision of an instructor.

Expectations: Students complete a research project, paper or other important creative project.

500-Level and 600-Level Courses

Masters-level graduate courses numbered 500-600 require a bachelor’s degree and admission to a graduate program. 500-level courses are more rigorous than undergraduate courses. These

courses require a higher level of critical thinking, necessitate considerably more intellectual rigor, and demand integration of information into frameworks of knowledge.

Assumptions: Graduate programs are specifically designed to enhance the student's knowledge, skills, and attitudes in their chosen academic arenas and to prepare them to accept professional responsibilities. Success in graduate programs is based not only on completing the required course work but also on demonstrating competencies and attitudes appropriate to the profession.

Expectations: Students should:

1. Be capable of sustained, independent inquiry and analysis;
2. Have a mastery of writing skills in the format required by the discipline;
3. Understand and carry out research at the master's level;
4. Possess a thorough understanding of the literature within the discipline;
5. Possess the ability to communicate effectively on topics within the discipline of study.

Adapted from guidance written by SUNY Fredonia & Holy Cross.

Bloom's Taxonomy

1. Knowledge - Knowledge is defined as the remembering of previously learned material. This may involve the recall of a wide range of material, from specific facts to complete theories, but all that is required is the bringing to mind of the appropriate information. Knowledge represents the lowest level of learning outcomes in the cognitive domain.

Illustrative General Instructional Objectives: Knows common terms. Knows specific facts. Knows methods and procedures. Knows basic concepts. Knows principles.

Illustrative Verbs for Stating Specific Learning Outcomes: Defines, describes, identifies, labels, lists, matches, names, outlines, reproduces, selects, states.

2. Comprehension - Comprehension is defined as the ability to grasp the meaning of material. This may be shown by translating material from one form to another (words or numbers), by interpreting material (explaining or summarizing, and by estimating future trends (predicting consequences or effects). These learning outcomes go one step beyond simple remembering of material and represent the lowest level of understanding.

Illustrative General Instructional Objectives: Understands facts and principles. Interprets verbal material. Interprets charts and graphs. Translates verbal material to mathematical formulas. Estimates consequences implied in data. Justifies methods and procedures.

Illustrative Verbs for Stating Specific Learning Outcomes: Converts, defends, distinguishes, estimates, explains, extends, generalizes, gives examples, infers, paraphrases, predicts, rewrites, summarizes.

3. Application - Application refers to the ability to use learned material in new and concrete situations. This may include the application of such things as rules, methods, concepts,

principles, laws, and theories. Learning outcomes in this area require a higher level of understanding than those of comprehension.

Illustrative General Instructional Objectives: Applies principles to new situations. Applies theories to practical situations. Solves mathematical problems. Constructs charts and graphs. Demonstrates correct usage of a procedure.

Illustrative Verbs for Stating Specific Learning Outcomes: Changes, computes, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses.

4. Analysis - Analysis refers to the ability to break down material into its component parts so that its organizational structure may be understood. This may include the identification of the parts, analysis of the relationship between parts, and recognition of the organizational principles involved. Learning outcomes here present a higher intellectual level than comprehension and application because they require an understanding of both the content and structural form of the material.

Illustrative General Instructional Objectives: Recognizes unstated assumptions. Recognizes logical fallacies in reasoning. Distinguishes between facts and inferences. Evaluates the relevancy of data. Analyses the organizational structure of a work (art, music, writing).

Illustrative Verbs for Stating Specific Learning Outcomes: Breaks down diagrams, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, points out, relates, selects, separates, subdivides.

5. Synthesis - Synthesis refers to the ability to put parts together to form a new whole. This may involve the production of a unique communication (theme or speech), a plan of operations (research proposal), or a set of abstract relations (scheme for classifying information). Learning outcomes in this area stress creative behaviors, with major emphasis on the formulation of new patterns and structures.

Illustrative General Instructional Objectives: Writes a well-organized paper. Gives a well-organized speech. Writes a creative short story (or poem). Proposes a plan for an experiment. Integrates learning from different areas into a plan for solving a problem. Formulates a new scheme for classifying objects (or events, or ideas).

Illustrative Verbs for Stating Specific Learning Outcomes: Categorizes, combines, complies, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes.

6. Evaluation - Evaluation is concerned with the ability to judge the value of material (statement, novel, poem, research report) for a given purpose. The judgements are to be based on definite criteria. These may be internal criteria (organization) or external criteria (relevance and purpose) and the student may determine the criteria or be given them. Learning outcomes in this

area are highest in the cognitive hierarchy because they contain elements of all of the other categories, plus value judgements based on clearly defined criteria.

Illustrative General Instructional Objectives: Judges the consistency of written material. Judges the adequacy with which conclusions are supported by data. Judges the value of a work (art, music, writing) by using internal criteria. Judges the value of a work (art, music, writing) by use of external standards.

Illustrative Verbs for Stating Specific Learning Outcomes: Appraises, compares, concludes, contrasts, criticizes, describes, discriminates, explains, justifies, interprets, relates, summarizes, supports.

References

- Benjamin S. Bloom, Bertram B. Mesia, and David R. Krathwohl. *Taxonomy of Educational Objectives (two vols: The Affective Domain & The Cognitive Domain)*. New York. David McKay, 1964.
- Bloom and David R. Krathwohl. *Taxonomy of Educational Objectives, Handbook 1: Cognitive Domain*. Benjamin S. Addison-Wesley Pub. Co. 1984. (An updated exposition of the 1956 model.)

Adapted from http://www.csun.edu/science/ref/reasoning/questions_blooms/blooms.html