SAN DIEGO CONTINUING EDUCATION COURSE OUTLINE RESOURCE GUIDE

Note: Bloom's Taxonomy of Cognitive Verbs and Webb's Depth of Knowledge referred to in this material are attached.

OVERALL: The successful course outline submission will demonstrate that:

- Each component of the course outline is rooted in the basic theory and concepts of the discipline.
- The COURSE GOALS are reflected in the COURSE OBJECTIVES.
- The COURSE OBJECTIVES are measurable and are aligned with the stated objectives in the CATALOG COURSE DESCRIPTION. Some objectives include critical thinking.
- The topics listed in the COURSE CONTENT AND SCOPE cover all the COURSE OBJECTIVES.
- The EVALUATION is aligned with the COURSE OBJECTIVES and COURSE CONTENT AND SCOPE and identifies how students will demonstrate that all of the COURSE OBJECTIVES have been met.
- The METHODS OF INSTRUCTION show how the course will enable students to achieve the objectives.
- APPROPRIATE READINGS, WRITING ASSIGNMENTS, APPROPRIATE ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING and OUTSIDE ASSIGNMENTS all relate specifically to the course.

SECTION I

SUBJECT AREA AND COURSE NUMBER:

Current Subject Areas (Select One):

- Adult Basic Education (ABED)
- Accounting (ACCT)
- Applied Design (APLD)
- Commercial Art (ARTC)
- Art Theory (ARTS)
- Arts Experimental (ARTX)
- Automotive Technology (AUTO)
- Biological Sciences (BIOL)
- Business Management (BUSN)
- Consumer Education Management of Resources (CEMR)
- Clothing and Textiles (CLTX)
- Construction Crafts Technology (CNCT)
- Communications (COMM)
- Computer and Information Sciences (COMP)
- Creative Writing (CRTW)
- Diesel Technology (DIES)
- Disability Support Programs and Services (DSPS)
- Dramatic Arts (DRAM), Driver Education (DRVE)
- Electronics (ELRN)
- Engineering (ENGE)
- English (ENGL)
- English as a Second Language (ESLA)
- Foods and Nutrition (FDNT)
- Health (HLTH)
- Health Education (HEAL)
- Housing, Maintenance and Interior Design (HMID)
- Human Development (HMDV)

- High School Diploma Program (HSDP)
- Industrial Technology (INDT)
- Interdisciplinary Studies (INTD)
- Investments (INVS), Law (LAWS)
- Marketing (MARK)
- Mechanical Technology (MECT)
- Music Appreciation, Theory (MUSI)
- Music Instrumental (MUSN)
- Music Vocal (MUSV)
- Office Systems (OFSY)
- Public Affairs and Services (PASV)
- Physical Science (PHYN)
- Printing/Graphics (PRTG)
- Safety Education (SFED)
- Social Sciences (SOCC)
- Speech (SPEE)

SUBJECT AREA AND COURSE NUMBER (CONTINUED):

New course numbers: Consult with office of the Vice President, Instructional Services for course numbering. This ensures that deactivated course numbers will not be reassigned.

COURSE TITLE:
- Accurately indicate the course content in the title.
- Limit course title to 30 characters, including spaces.
- Avoid use of abbreviations.

TYPE COURSE:
Choose appropriate course type:
NON FEE: Adult Basic Education (ABE), Apprenticeship, Disabled Student Programs and Services (DSPS), English as Second Language (ESL), High School Diploma Program (HSDP), Older Adult (OA), Parent Education, and Career Technical Education (CTE).
FEE: Community Education

Example:

SUBJECT AREA AND COURSE NUMBER

COMP 641

COURSE TITLE

LINUX ESSENTIALS

TYPE COURSE

NON-FEE   VOCATIONAL

CATALOG COURSE DESCRIPTION:
- Write a short paragraph of approximately 600 characters, <u>include advisories in the character count, including spaces (if applicable)</u>, that summarizes the objectives and content.
- If the course is intended for a special population category (e.g. DSPS, Older Adult, Parent Education) clearly demonstrate that the course meets the needs of the population.
- Use complete sentences; write in the present tense.
- Include COURSE CONTENT AND SCOPE in description.
- Identify the need for the course and/or outcome students will receive.
- Include any special requirements and any unusual aspects of the course.
- Include general statement that identifies the target audience (e.g., students who would benefit from taking the course). This is particularly useful for student planning for programs leading to certificates of completion or those courses leading to credit programs.
- Include the text **(FT)** at the end of the paragraph to allow for potential field trips.
- Note, the course description will be exactly replicated in the course catalog and class

schedule.

LECTURE HOURS: State the total lecture hours required for course.

LAB HOURS: State the total lab hours required for course. Lab hours may be combined under lecture hours and lab hours

Total hours can be combined under <u>LECTURE/LABORATORY HOURS if appropriate.</u>

ADVISORIES: List recommendations to be completed prior to enrolling in the course. Advisories do not prevent a student from enrolling but are strongly encouraged for a student's success. **Note advisories are included in published course advertisements and therefore will count towards the 600 character course description limitation.**

RECOMMENDED SKILL LEVEL: Indicate if there are any minimum basic skills level or standardized test scores recommended for student academic success.

Example:

<u>CATALOG COURSE DESCRIPTION</u>

This course includes the installation, configuration, and the management of the Linux Operating System. Students will learn about command line processing, user accounts and permissions, and basic shell programming. Students will be introduced to the history of Linux and the open source community, and the different distributions of Linux currently available. (FT)

<u>LECTURE/LABORATORY HOURS</u>

     120

<u>ADVISORY</u>

Microcomputer Basics or equivalent.

<u>RECOMMENDED SKILL LEVEL</u>

Possess a 10th grade reading level; ability to communicate effectively in the English language; knowledge of math concepts at the 8th grade level and basic computer literacy.

INSTITUTIONAL STUDENT LEARNING OUTCOMES (SLOs)

- Enter SDCE Institutional SLO's.
- Do not enter program or course SLO's.

INSTITUTIONAL STUDENT LEARNING OUTCOMES

1. Social Responsibility
   SDCE students demonstrate interpersonal skills by learning and working cooperatively in a diverse environment.
2. Effective Communication
   SDCE students demonstrate effective communication skills.
3. Critical Thinking
   SDCE students critically process information, make decisions, and solve problems independently or cooperatively.
4. Personal and Professional Development
   SDCE students pursue short term and life-long learning goals, mastering necessary skills and using resource management and self-advocacy skills to cope with changing situations in their lives.

COURSE GOALS:

- Write broad and encompassing statements that reflect the overall vision of the course (what students should gain from the class).
- Write goals that are not stated in measurable terms, but define a general mission of the course.
- Choose goals that are attainable within the time frame of the course.
- Consider writing goals in a bulleted or numbered list rather than in paragraph form for easier reading

Example:

COURSE GOALS

1. Introduce the Linux Operating System environment.
2. Learn the different distributions of Linux.
3. Gain a basic understanding of files and directories.
4. Learn how to use permission and ownership to secure files and directories.
5. Understand what shells are and how they relate to the overall system.
6. Learn command line basics.
7. Understand and use basic shell programming.

COURSE OBJECTIVES:

- Write narrow, specific statements that define what the student knows at the end of the course.
- Employ verbs that demonstrate specific, observable, measurable outcomes. (Refer to Bloom's Taxonomy and Webb's Depth of Knowledge, attached)
- Begin the list of objectives with "The student will be able to:" Follow that phrase with completion statements using verbs from Bloom's Taxonomy or Webb's Depth of Knowledge.
- If the course is intended for a special population category (e.g. DSPS, Older Adult, Parent Education) clearly demonstrate that the course meets the needs of the population.
- Note that COURSE OBJECTIVES must be aligned with COURSE CONTENT AND SCOPE and EVALUATION and must reflect the COURSE GOALS.
- Reflect critical thinking (analysis, synthesis, evaluation) as opposed to the more basic (knowledge, comprehension, application) cognitive outcomes in at least some of the objectives.
- Be concise and complete.
- All courses must have content specified in the outline of topics to fulfill the course objectives.

Example:

COURSE OBJECTIVES

1. Describe and use the different distributions of Linux.
2. Demonstrate installation and upgrade of Linux Operating System.
3. Demonstrate managing network configuration.
4. Describe the Linux file system and manage system processes.
5. Demonstrate how to create and alter directories and files.
6. Describe the purpose of a shell and how they relate to the overall system.
7. Demonstrate basic shell programming.
8. Demonstrate command line basics.

SECTION II

COURSE CONTENT AND SCOPE:
- Must be in outline format. The minimum standard requires topic and subtopics. Some highly technical courses may require additional subtopics.
- Topics must correlate to the COURSE OBJECTIVES. It is helpful to reviewers to use some of the same identifying language in both topic headings and objectives.
- Content emphasis may be indicated by the amount of sub-headings listed under a given topic.
- If the course is intended for a special population (e.g. DSPS, Older Adult, Parent Education) clearly demonstrate that the course meets the needs of the population.
- Use noun forms to list titles/topics of lessons.
- Content can be covered in the amount of hours the class meets.

Example:

COURSE CONTENT AND SCOPE

1. A Career in Open Source and Joining the Linux Community
   1.1. Linux evolution and popular operating systems
      1.1.1. Open source philosophy
      1.1.2. Distributions
      1.1.3. Embedded systems
   1.2. Major open source applications
      1.2.1. Desktop applications
      1.2.2. Server applications
      1.2.3. Mobile applications
      1.2.4. Development languages

APPROPRIATE READINGS:
- Texts and other readings should relate specifically to the topics in the outline.
- List examples of the kinds of reading assignments, supplemental to the assigned texts that will achieve the objectives.
- Identifying specific articles is not required nor advised, as it is too restrictive.
- It is helpful to identify types of materials (e.g., periodicals, magazines, manuals, etc.)

Example:

APPROPRIATE READINGS

Appropriate readings may include, but are not limited to, periodicals, magazines, instructor-written materials, manuals, instructor selected URLs, and publications related to the implementation of desktop operating systems.

WRITING ASSIGNMENTS:
- List specific types of writing assignments, such as essays, lab reports, technical reports, journals, research papers, critiques, summaries, etc., that are relevant to the COURSE OBJECTIVES.
- Do not include written examinations in this section; they are to be included in METHODS OF EVALUATION.
- Give a minimum of two examples.

Example:

WRITING ASSIGNMENTS

Appropriate writing assignments may include, but are not limited to, preparing text for an assigned project, keeping a journal on all laboratory and project work, and completing all assigned reports.

OUTSIDE ASSIGNMENTS:

- List the kinds of assignments that students are expected to work on outside of class.
- Identify any special projects.

Example:

OUTSIDE ASSIGNMENTS

Outside assignments may include, but are not limited to, reading texts and reference resources; research as needed to complete projects; and organizing and preparing written answers to assigned questions.

APPROPRIATE ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING:
- Include assignments that do not have one right answer; assignments should be thought-provoking, requiring the student to perform some independent analysis, comparison, inference, application, creation, design, formulation, evaluation, etc.
- Give at least one example of how students will do independent higher order thinking. (Refer to Bloom's Taxonomy or Webb's Depth of Knowledge, attached.)

Example:

APPROPRIATE ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING

Assignments which demonstrate critical thinking may include, but are not limited to, analysis and evaluation of assigned text and reference resources, and utilize this analysis in classroom discussions, writing assignments, and in performing laboratory activities. Students must select and use appropriate methods and resources to complete laboratory assignments.

EVALUATION
- State method(s), procedures, and assessment instruments used to determine if the minimum competencies have been met, and what criteria is to be used to determine same.
- Ensure that the methods are consistent with stated OBJECTIVES and appropriately measure the degree of competency obtained.
- Give the basis for grading if grading is part of the course, or for certificate of completion or other evaluation of progress.
- Relate evaluation to the skills and objectives.
- Show that critical thinking is required.
- Be sure that knowledge of required content constitutes a significant portion of the grade as reflected in the evaluation methods.

Example:

EVALUATION

A student's grade will be based on multiple measures of performance and will include evaluation of student's ability to:

1. Perform in a variety of activities and assignments.
2. Complete written and practical examinations.
3. Contribute to class and group discussions.
4. Maintain attendance and punctuality per current policy.
5. Demonstrate ability to work independently and as a team member.

Upon successful completion of each course in the program, a Certificate of Course Completion will be issued. Upon successful completion of both courses included in the program, a Certificate of Program Completion will be issued.

METHOD OF INSTRUCTION:

- Specifically list and describe the types of methods and tasks that will give ample opportunities for students to achieve the OBJECTIVES. The following is a list of suggested ideas: lecture, lecture/discussion, seminar, lab, lab/lecture, teaming and collaborative learning, job shadowing, audio-visual, portfolios, videotaped analysis of performances or presentations, field trips, etc.) NOTE: Availability of closed-captioning is required for all videos and visual broadcasts used in instruction.
- Use methods appropriate to the OBJECTIVES.
- If the course or sections of the course may be offered in any form of distance learning include the following sentence: This course, or sections of this course, may be offered through distance education.

Example:

METHOD OF INSTRUCTION

Methods of instruction may include, but are not limited to, lectures, discussion, hands-on demonstrations, computer-assisted instruction, laboratory assignments and field trips. This course, or sections of this course, may be offered through distance education.

TEXTS AND SUPPLIES:

- List at least one text for the course in following order:
  Title of book, author, publisher, publishing date or state current edition.

- List all supplies that are required or highly recommended for the course.

Example:

TEXTS AND SUPPLIES

Linux Essentials, Roderick W. Smith, John Wiley & Sons, Inc., current edition
Linux+ Guide to Linux Certification, Jason W. Eckert, Cengage Learning, current edition
Linux Bible: The Comprehensive, Tutorial Resource, Christopher Negus, John Wiley & Sons, Inc., current edition

Web Resources: Linux Professional Institute, http://www.lpi.org/;
Linux.org, http://www.linux.org/;
GNU Operating System, https://gnu.org/;
Free Software Foundation, http://www.fsf.org/; fedora, http://fedoraproject.org/;
unbuntu, http://www.ubuntu.com/

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PREPARED BY: _____ DATE: _____

REVISED BY:_____ DATE: _____

- For new courses, write the author's name next to PREPARED BY.
- For course revisions, write author's name next to REVISED BY.

Instructors must meet all requirements stated in Policy 3100 (Student Rights, Responsibilities and Administrative Due Process), and the Attendance Policy set forth in the Continuing Education Catalog.

REFERENCES:
San Diego Community College District Policy 3100
California Community Colleges, Title 5, Section 55002
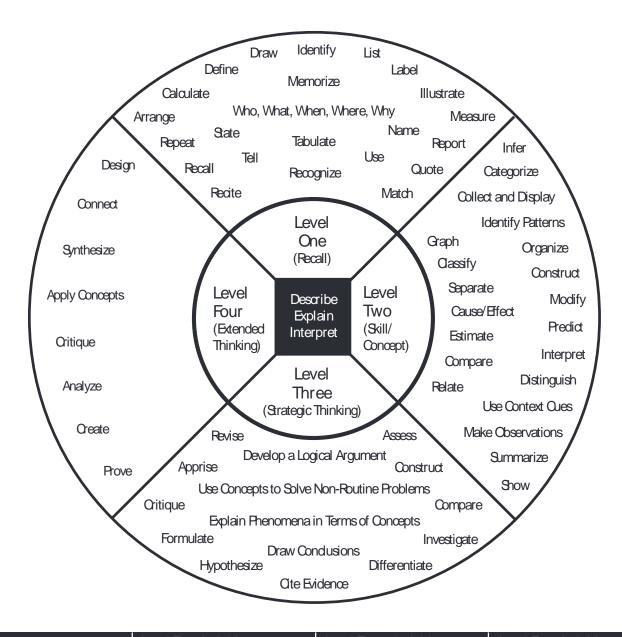Continuing Education Catalog

Bloom's Taxonomy of Measurable Verbs

Benjamin Bloom created a taxonomy of measurable verbs to help us describe and classify observable knowledge, skills, attitudes, behaviors and abilities. The theory is based upon the idea that there are levels of observable actions that indicate something is happening in the brain (cognitive activity.) By creating learning objectives using measurable verbs, you indicate explicitly what the student must do in order to demonstrate learning.

Verbs that demonstrate ==*Critical Thinking*==

KNOWLEDGE	COMPREHENSION	APPLICATION	ANALYSIS	SYNTHESIS	EVALUATION
					Appraise
				Arrange	Argue
			Analyze	Assemble	Assess
		Apply	Appraise	Collect	Choose
		Complete	Categorize	Combine	Compare
	Compare	Construct	Compare	Comply	Conclude
List	Describe	Demonstrate	Contrast	Compose	Estimate
Name	Discuss	Dramatize	Debate	Construct	Evaluate
Recall	Explain	Employ	Diagram	Create	Interpret
Record	Express	Illustrate	Differentiate	Design	Judge
Relate	Identify	Interpret	Distinguish	Devise	Justify
Repeat	Recognize	Operate	Examine	Formulate	Measure
State	Restate	Practice	Experiment	Manage	Rate
Tell	Tell	Schedule	Inspect	Organize	Revise
Underline	Translate	Sketch	Inventory	Plan	Score
		Use	Question	Prepare	Select
			Test	Propose	Support
				Setup	Value

Depth of Knowledge (DOK) Levels

Draw, Identify, List, Define, Label, Memorize, Illustrate, Calculate, Who, What, When, Where, Why, Measure, Arrange, Name, Repeat, State, Tabulate, Report, Tell, Use, Infer, Recall, Recognize, Quote, Categorize, Recite, Match, Collect and Display, Design, Identify Patterns, Connect, Graph, Organize, Synthesize, Classify, Construct, Apply Concepts, Separate, Modify, Cause/Effect, Predict, Critique, Estimate, Interpret, Analyze, Compare, Distinguish, Create, Relate, Use Context Cues, Prove, Revise, Assess, Make Observations, Apprise, Develop a Logical Argument, Summarize, Construct, Show, Critique, Use Concepts to Solve Non-Routine Problems, Compare, Formulate, Explain Phenomena in Terms of Concepts, Investigate, Hypothesize, Draw Conclusions, Differentiate, Cite Evidence

Level One (Recall)
Level Two (Skill/Concept)
Level Three (Strategic Thinking)
Level Four (Extended Thinking)
Describe, Explain, Interpret

Level One Activities	Level Two Activities	Level Three Activities	Level Four Activities
Recall elements and details of story structure, such as sequence of events, character, plot and setting.	Identify and summarize the major events in a narrative.	Support ideas with details and examples.	Conduct a project that requires specifying a problem, designing and conducting an experiment, analyzing its data, and reporting results/solutions.
Conduct basic mathematical calculations.	Use context cues to identify the meaning of unfamiliar words.	Use voice appropriate to the purpose and audience.	Apply mathematical model to illuminate a problem or situation.
Label locations on a map.	Solve routine multiple-step problems.	Identify research questions and design investigations for a scientific problem.	Analyze and synthesize information from multiple sources.
Represent in words or diagrams a scientific concept or relationship.	Describe the cause/effect of a particular event.	Develop a scientific model for a complex situation.	Describe and illustrate how common themes are found across texts from different cultures.
Perform routine procedures like measuring length or using punctuation marks correctly.	Identify patterns in events or behavior.	Determine the author's purpose and describe how it affects the interpretation of a reading selection.	Design a mathematical model to inform and solve a practical or abstract situation.
Describe the features of a place or people.	Formulate a routine problem given data and conditions.	Apply a concept in other contexts.	
	Organize, represent and interpret data.		

Webb, Norman L. and others. "Web Alignment Tool" 24 July 2005. Wisconsin Center of Educational Research. University of Wisconsin-Madison. 2 Feb. 2006. <http://www.wcer.wisc.edu/WAT/index.aspx>.