

THE COURSE OUTLINE OF RECORD:
A CURRICULUM REFERENCE GUIDE REVISITED

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TABLE OF CONTENTS

INTRODUCTION.....	1
HOW TO USE THIS PAPER.....	2
PLANNING THE COURSE OUTLINE OF RECORD.....	3
COMPONENTS OF A COURSE OUTLINE OF RECORD.....	7
ELEMENTS THAT APPLY TO CREDIT COURSES.....	13
DETERMINING LEVELS BELOW TRANSFER AND CB 21 RUBRICS.....	35
GENERAL CURRICULUM CONSIDERATIONS.....	50
CALIFORNIA'S EDUCATION SEGMENTS' ROLES AND STUDENTS.....	53
CSU GE BREADTH AND IGETC.....	53
CONCLUSION.....	54
APPENDIX I: CHANCELLOR'S OFFICE MEMORANDUM ON THE STANDARD FORMULA FOR CREDIT HOUR CALCULATIONS.....	55
APPENDIX II: GLOSSARY.....	67
APPENDIX III: COURSE OUTLINE OF RECORD TITLE 5 REQUIREMENTS.....	76
APPENDIX IV: RELEVANT PUBLICATION RESOURCES.....	77
APPENDIX V: RESOURCES LINKS.....	80

INTRODUCTION

The course outline of record (COR) is central to the curricular processes in the California community colleges. The COR has evolved considerably from its origins as a list of topics covered in a course. Today, the course outline of record is a document with defined legal standing that plays a critical role in the curriculum of the California community colleges. The course outline has both internal and external influences that impact all aspects of its content, from outcomes to teaching methodology, which, by extension, impact program development and program evaluation.

Requirements and standards for the course outline of record appear in Title 5 Regulations (see Appendix 3), in the Chancellor’s Office *Program and Course Approval Handbook* (PCAH), and in the Accrediting Commission for Community and Junior Colleges (ACCJC) accreditation standards. System-wide intersegmental general education agreements with the California State University and the University of California (CSU-GE Breadth and IGETC¹ respectively) may also place requirements upon the course outline, such as requiring specific content or prerequisites or currency of learning materials to satisfy articulation agreements.

Since the COR is also used as the basis for articulation agreements, colleges pay great attention to providing a document with which to determine how a student’s community college courses will be counted upon transfer to four-year baccalaureate granting institutions. Course outlines of record are also used in the process of identifying courses that meet the requirements of the Course Identification Numbering System, or C-ID. Additionally, course outlines are regularly reviewed as part of a college’s program review process, which is of central importance to accrediting agencies as well as to local planning and resource purposes. For colleges to maintain their delegated authority to review and approve new and revised courses, they must certify that their local approval standards meet the comprehensive guidelines produced by the Chancellor’s Office. The quality described in a COR is evidence of meeting these guidelines.

The COR plays a particularly important role in the California community colleges because it clearly lays out the expected content and objectives for a course for use by any faculty member who teaches the course. Course outlines provide a type of quality control, since community college courses are commonly taught by several, and sometimes dozens of, full- and part-time faculty members. In order to ensure that core components are covered in all sections of a course, the integrity of the instruction relies on the COR to specify those elements that will be covered by all faculty members who teach the course.

One of the most significant aspects of a COR is the inclusion of student learning outcomes (SLOs). SLOs can be a driver of many, if not all, elements of a course outline of record. The current commission that accredits nearly all of California’s two year colleges mandates that institutions maintain “officially approved and current course outlines of record that include student learning outcomes” (ACCJC Standard IIA3). Colleges have developed multiple interpretations regarding the appropriate physical location of outcomes on a course outline of record, and some institutions have opted to include

1 Intersegmental General Education Transfer Curriculum

student learning outcomes on an addendum to a COR, while others place the SLOs on the COR next to objectives. Colleges are encouraged to work with their accrediting body to ensure appropriate compliance. A finer distinction between student learning outcomes and course objectives is provided in other sections of this paper.

While state and local standards for a COR have been updated many times and are subject to ongoing revision, numerous resolutions have directed the Academic Senate for California Community Colleges (ASCCC) to provide guidance in the development of course outlines. This update to the original paper *The Course Outline of Record: A Curriculum Reference Guide* (2008), requested by resolution 9.06 S14, is part of the effort to provide that guidance so that faculty might have direction and reasonable assurance that the internal and external course outline of record requirements for the college are met. This updated paper has incorporated the relevant portions of the original document as well as several Academic Senate papers, including *Stylistic Considerations in Writing Course Outlines of Record* (1998), *Good Practices for Course Approvals* (1998), *Noncredit Challenges and Opportunities* (2009), and the *SLO Terminology Glossary* (2009).

The ASCCC also recommends that this paper be used in the context of other documents, including ASCCC papers on *The Curriculum Committee: Role, Structure, Duties, and Standards of Good Practice* (1996) and *Ensuring Effective Curriculum Approval Processes: A Guide for Local Senates* (2016). In addition, the current edition of the Chancellor's Office *Program and Course Approval Handbook* (2016), along with ancillaries to that document, will be relevant for portions of the paper. Finally, the *Accrediting Commission for Community and Junior College's Accreditation Standards* (2014) should be examined in the context of standards relevant to teaching and learning at the course, program, and institutional level. The purpose of these documents is to support the development of a course outline of record in light of the role of local curriculum committees and governing boards in developing and approving curriculum and the role of the Chancellor's Office in approving certificates and programs to ensure compliance.

While this paper offers a model for the course outline of record, it is not intended to force standardization of curriculum. Instead, the paper should serve as a guide to assist faculty in presenting their courses in a format that will accurately reflect the quality of instruction being provided. While the course outline of record is a blueprint of what instructional elements must be included, teaching should always be a dynamic and adaptive process, constantly adjusting to accommodate the ever-changing, diverse learning needs of students in the California community colleges. The model presented is intended to clearly demonstrate that the course will stand up to the rigor established by Education Code and Title 5 Regulations, transfer institutions, accrediting bodies, and other external entities.

HOW TO USE THIS PAPER

This paper is intended to serve the needs of both new and experienced faculty members in writing a course outline of record. Credit and noncredit course outlines are treated separately, not because the differences between the two are significant but because in all likelihood the faculty member writing a noncredit course outline needs ready access to other sections related to noncredit courses more than related information for credit course outlines.

This paper is not focused on the development of programs leading to degrees and certificates. While the context of program development and evaluation is important in the development of course outlines of record and is reflected in the discussion of the elements of the COR, for specific information about the requirements for submitting programs for approval to the Chancellor's Office, one should refer to the *Program and Course Approval Handbook* as well as the forthcoming ASCCC paper on course and program development.

For a new faculty member writing a course outline, or for those who need a refresher, the first section of the paper, "Planning the Course Outline of Record," discusses planning considerations for developing a COR, including the need to consider how the course outline integrates with numerous curriculum processes, the course learning outcomes, and the resources that should be collected as one embarks on the writing or revision of a course outline of record.

The second section of the paper, "Components of a Course Outline of Record," details each element required for a course outline of record. The elements are presented in the order typically found in many CORs, which is similar to the order found in Title 5 §55002, Standards and Criteria for Courses.

The final section of the paper, "General Curriculum Considerations," contains further background and detailed information about curriculum requirements outlined within Title 5 that go beyond the COR.

The appendices include a glossary of the terms commonly used in curriculum development, a list of references organized by curriculum topic, references to Title 5 regulatory language, and examples of course outlines of record.

PLANNING THE COURSE OUTLINE OF RECORD

Initial Considerations

The development of curriculum is something that should be undertaken by faculty; while administrators or others might have ideas about courses or programs, the primary responsibility must always reside with the faculty. In most cases, the faculty member will initiate this effort based upon the questions "What do we need students to be able to do, and what do they need to know to be able to do it?" The idea for courses may also originate from some identified need, such as a course that would improve job readiness for a new or revised program or one that is needed for transfer into a particular major. Regardless of the motivation, the faculty member should begin with a holistic vision of the course to be proposed and an awareness of the skills or abilities that a student should be able to demonstrate as a result of successfully completing the course.

After determining a need and a rationale for a course, the next consideration is to determine what the course's roles will be. Is the course intended to be degree applicable? Will it transfer? Is it appropriate as

a general education course? What articulation should be sought? These questions are just a few of many to consider prior to beginning the development of any course outline of record.

While each required course element must be written discretely, each element should also take into account other components to assure the final course outline is constructed in an integrated manner. For example, an interwoven relationship should exist between the discrete skills and content students should learn (course objectives), how proficiency in those objectives will be evaluated (methods of evaluation), and the measurable skills and abilities that students are able to demonstrate subsequent to completing the course (student learning outcomes). Furthermore, the objectives and outcomes must have a clear relationship to the subject or content. The COR should reflect a quality in the course sufficient to attain the objectives and the resulting outcomes.

Central to the regulatory intent of collegial consultation is the faculty's primacy in the role of ensuring quality instruction through the development of integrated course outlines of record. The outline must contain all the elements specified in Title 5 §§55002.(a), (b), or (c): unit value, contact hours, requisites, catalog description, objectives, and content. The outline must also include types or examples of assignments, instructional methodology, and methods of evaluation. The course outline must be rigorous and effective in integrating the required components of critical thinking, essay writing and problem solving, college-level skills, and vocabulary if such skills are appropriate for the type of course being developed. In addition, the course must comply with any other applicable laws, such as those related to access for students with disabilities. A COR also must address any requirements based on accreditation.

Stylistic concerns are also important. Research on curriculum and instructional design suggests that the COR faculty author should be very specific when articulating what the student will be able to accomplish by the end of the course and defining how the instructor will evaluate the student's progress. The use of a taxonomy of learning, such as Bloom's Taxonomy, is recommended for consistency of language and rigor. After this development, the content items, learning materials, class enrollment maximums if such matters are not a contractual issue locally, the units and contact hours, and other features can all be fleshed out with a specific focus on integrating each of these areas so that they validate the need for each component in multiple ways. Stylistic issues also matter in the articulation process. Faculty developing transferable courses should be mindful of the language in course outlines at the receiving institutions to ensure articulation agreements are reached smoothly.

Irrespective of how the course outline is structured and written, the faculty member will generally produce a more robust product not by starting at one end and working towards the other but rather by being creative where doing so is most easy or enjoyable. The faculty member can then build upon these initial areas to develop the other elements or fill-in unanticipated gaps as they become apparent. For many faculty, the initial drafting might be in the content areas. From there, a faculty member can expand into the writing of learning objectives, textbook selection, and the number of course hours needed to cover the material. In short, a constant and necessary interplay should take place in the development of the elements of the course outline once the desired learning outcomes have been established.

Writing an Integrated Course Outline

A course outline of record needs to be integrated, as each element of the COR should reinforce the purpose of the other elements in the course outline. An obvious relationship should exist between the objectives of the course, the methods of instruction, assignments, and methods of evaluation used to promote and evaluate student mastery of those objectives and outcomes.

At the onset, every course should be developed with a purpose or goal in mind. The course must have sufficient and appropriate learning objectives that create a framework for students to develop their knowledge and abilities in order to demonstrate the overarching student learning outcomes and fulfill the intended purpose of the course. The course content items then define the elements of information, behavior, or capabilities for each objective to be mastered. Each content item and objective is then reflected in comprehensive assignments or lessons that are taught using appropriate and effective methods. Finally, in an integrated course outline of record, the methods for evaluation of student performance validate the acquisition and mastery of each content item and the attainment of each objective. These methods of assessment may also serve to measure student achievement of the defined student learning outcomes, or additional methods may be useful. Content should be the only subject-based element; the others specifically focus on what the student will be doing and will be able to demonstrate by successfully completing the course.

Resources for the Faculty Member

While all course outline development must comply with Title 5 §55002, many colleges have created a template for the course outline that includes the required elements as well as many local elements. A college may use a curriculum management system for tracking its curriculum approval process and as its repository for course outlines as well as for submitting that information to the Chancellor's Office; however, technology should support the process, not drive it. An effective template will help the faculty member compile all of the required information prior to submission. However, the responsibility for completing every outline element may not fall upon the individual faculty member. For example, numerical course identifiers or transferability may be addressed much later in the approval process, although local practice may provide for the faculty member to indicate the intent for the course to eventually to be transferable.

The following are useful documents for a faculty member to have at hand when developing a COR: the college catalog, some recently approved course outlines to serve as examples, any supplemental addenda or forms dictated by the instructional modality such as a separate distance education form or content review form, standards established by the discipline either locally or by a professional organization or by external accreditors or regulatory bodies, and any special district policies that may apply. Often local curriculum committees have created their own curriculum development handbooks that contain much of this information.

Making use of human resources is also important. Consulting with other faculty in the discipline is essential. The faculty writer should also identify other faculty members who are familiar with the local process to assist. The curriculum committee chair may be available to provide guidance, as well as members of the curriculum committee, curriculum specialists or technicians, and administrators involved in curricular practices such as a dean or chief instructional officer.

The final and equally critical tools are references relevant to the subject matter being taught. From a planning perspective, the faculty should acquire these resources first and then examine the most effective and reliable methods to promote learning within the intended learning environments available for the delivery of this subject. For example, planning for allied health courses must take into consideration equipment needs and safety concerns to promote effective learning as well as the pedagogy of the discipline. The dean or CIO overseeing a particular department may have the information needed for these types of resources.

With resources at hand, the faculty author can begin to consider creating the various elements of the course outline of record.

Outcomes, Accreditation, and the Course Outline

For California's community colleges, several accreditation standards regarding student learning outcomes touch on the COR. Standard II.A.3 states, "The institution has officially approved and current course outlines that include student learning outcomes." This statement has been interpreted in different ways, with some colleges choosing to include SLOs as addenda to their CORs housed within their course outline management systems, while others include the SLOs in the COR itself. While a definitive interpretation has not been established, colleges should continue to work with their accrediting agency to ensure compliance. Additionally, Standard I.C. Institutional Integrity lists many areas in which colleges must ensure that accurate information is provided for students, including learning outcomes and educational programs. Colleges would be wise to maintain accurate CORs to fulfill the spirit of this standard.

SLOs can act as a central component in the development of many elements of both credit and noncredit courses. Per the accreditation standards, assessment data collected by faculty on outcomes, along with other information, must be reviewed and used to create action plans intended to improve teaching practices and student success at the course and program level. Many colleges use a data mapping process that links course student learning outcomes (CSLOs) found on the COR to program student learning outcomes (PSLOs) in order that the data collected at the CSLO level provides data for PSLO assessment. Given the importance of these links between the CSLOs and the PSLOs, faculty should begin course development and review of objectives and other elements of the COR with an analysis of how the CSLOs support student attainment of the PSLOs for those programs that include the course being reviewed. This practice ensures that students taking the courses and performing the SLOs of those courses will also be able to perform the PSLOs for their programs.

A similar situation exists for institutional student learning outcomes (ISLOs) and general education learning outcomes (GELOs). All course learning outcomes should align with either the ISLOs of the college or the GELOs for students enrolled in programs that include a GE component. ACCJC Standard II.A.12 states, "The institution, relying on faculty expertise, determines the appropriateness of each course for inclusion in the general education curriculum, based upon student learning outcomes and competencies appropriate to the degree level." Similar mappings between CSLOs and

ISLOs or GELOs are often the source for data reports used for annual accreditation reporting and for institution-wide discussion of student success. Given the potential widespread reach of ISLO and GELO data, faculty should discuss CSLOs with these implications in mind.

COMPONENTS OF A COURSE OUTLINE OF RECORD

ELEMENTS THAT APPLY TO CREDIT AND NONCREDIT COURSES

Course outlines of record must be approved by the local curriculum committee before being submitted to the board of trustees for approval and the Chancellor's Office for chaptering. The following elements of a course outline of record are items that reflect requirements from Title 5 §55002, "Standards and Criteria for Courses," other sections of Title 5, Chancellor's Office guidelines, and accreditation standards. However, some of these elements may not apply to all types of courses.

Need/Justification/Goals

The purpose of this section is to provide guidance for faculty to meet the criteria spelled out in the *Program and Course Approval Handbook* regarding documenting what student need the course is intended to meet. According to the PCAH, "The proposal must demonstrate a need for a program or course that meets the stated goals and objectives in the region the college proposes to serve with the program" (8).

Mission

The mission of the college should drive all curriculum development as well as potential revision when the mission of the college is changed or expanded. Currently Education Code § 66010.4 defines the mission of the California community colleges as focused on lower division transfer preparation, vocational education, and basic skills education. However, many colleges have additional aspects of their missions which might also drive curriculum development, such as diversity of student population or interest in adult education. Local curriculum processes should include questions that prompt faculty to consider the mission when making new course proposals, revising existing courses, or adding new courses to programs. Accreditation standards for many agencies also involve the role of the college mission in institutional planning and may therefore need to be considered in terms of curriculum development and revision.

The Role of a Course

For transfer programs and courses, the role of and need for a course is more easily established by determining both student demand and transfer applicability for existing university majors. For career technical programs and courses, this role and need can be more challenging to establish and must rely

on evidence such as labor market data, potential employer needs, advisory committee input, and job advertising information, to name a few. Additionally, some districts have research capabilities that can assist with this research and know where to access the data.

Statement of Need

Once the need has been determined and documented, the statement of need should establish the role of the course in the major programs or general education areas in which it is designed to serve. If it is a stand-alone course, which is a course that is not part of a program, then its role in the college's curriculum should be explained as part of a proposal. In particular, this rationale should explain how existing courses do not meet this identified need and clearly distinguish the role of the proposed course from that of similar courses.

Examples of need statements:

- ♦ Medical Terminology I provides a basic introduction to students in all allied health majors. By combining portions of existing courses in those majors, this course allows those programs to provide more emphasis on content. An added advantage will be more flexibility in section offerings as well as emphasizing medical terminology across all specialties.
- ♦ This course has been proposed to meet a new requirement expected for students pursuing employment in the hazardous materials technology industry, which is now required for certification in fire science.
- ♦ This course in Jazz and Blues Music grew out of increasing student demand, as demonstrated by wait list data and student surveys, for more on this subject than is currently being covered in our Popular American Music course. This new course will be part of the restricted elective list for those majoring in music.

Differentiating Courses

Course outlines of record should be created with other courses in mind, particularly when similarities exist among them. When a course is part of a sequence, great care should be taken in the development process to show the progression of rigor in the sequence of courses or the different objectives, content, or outcomes that make the course different from others and an essential part of a program. For non-sequential but similar courses, similar steps should be taken to ensure non-duplication of coursework that may confuse students and dilute student demand. Areas on a COR that provide opportunity for clear distinctions to be made among courses include the description, the objectives, core content, examples of assignments, and student learning outcomes.

Course Description

When any course is developed, the course purpose or description sets the stage for all subsequent elements on the COR. Embedded within a course's description are the reasons that the course exists and a holistic overview of objectives, content, and outcomes. Without this defining statement, instructors teaching sections of a course may be unclear on the scope of the course, how content should be taught, or how discrete objectives or the overarching student learning outcomes statements should be assessed. A course without a description that is clearly distinct from another course should not exist, and all courses should include defined student learning outcomes relevant to and supported by the course objectives.

External Research Requirements

Some fields of study stay similar over time, while others change and evolve comparatively quickly. For every course, a periodic consideration of outside influences should be conducted. When external research requirements are mandated or necessary, faculty should consider these triggers as a prelude to the development or revision of a COR. External accreditation bodies, career-technical education advisory committees, discipline professional organizations, local college-business partnerships, and agreements between the community college and any baccalaureate-granting institutions are all examples of such requirements by external bodies that may necessitate development or revision.

CHANCELLOR'S OFFICE DATA ELEMENTS

Stand Alone Courses

The Chancellor's Office refers to courses that are not part of a program leading to an award as stand-alone courses. Stand-alone courses may be approved and offered locally without Chancellor's Office review. Stand-alone courses often meet a specific local need. This term also refers to credit courses required for a certificate of fewer than 18 semester units or 27 quarter units that has not been approved by the Chancellor's Office. In addition, courses such as learning skills or tutoring courses may be considered stand-alone. Like other courses, a stand-alone course must have a control number prior to being offered and claimed for apportionment, contain all required elements, and meet all standards of approval as required by Title 5. Additional guidance for creating stand-alone courses is available on the Chancellor's Office's website.

Title

All courses must have titles that should be considered from the perspective of students as well as potential employers and transfer institutions. While overly specific titles can be cumbersome, the title of the course should provide enough information so that prospective students will easily identify the general purpose of the course. Course titles take on extra significance when courses are reviewed by articulating institutions and potential employers who use college transcripts when considering students for transfer credit or employment.

Elements Related to Currency

Curriculum must be current to be relevant. While Title 5 requires review of all prerequisites and corequisites at least once each six years and prerequisites and corequisites for career technical courses every two years, most colleges apply that timeline not only to requisite review but to review of the entire course. In addition, accreditation and articulation processes also have currency requirements, as do many grants and other external agencies. Typically, the course outline of record will have some method for tracking revision dates to meet these needs.

Course Control Numbers and Chaptering

Courses are submitted electronically to the Chancellor’s Office Curriculum Inventory (COCI). Credit course proposals are certified by the chief instructional officer and the curriculum chair at a college, approved by the board of trustees, and then submitted to the Chancellor’s Office for chaptering prior to being offered at the community college. The Chancellor’s Office provides a unique control number for every course to ensure data accuracy, which is critical to measuring student success indicators. The unique identifier should be included on the course outline of record for easy reference and will likely be assigned as a part of the approval process.

Local curriculum approval processes may provide some of these data elements outside of the faculty’s normal role. But local process development must reflect faculty primacy in all matters pertaining to the course outline of record.

The Chancellor’s Office reviews noncredit course submissions to ensure that the associated data elements for each course are correct and compliant with regulations. Credit courses are checked within the COCI to ensure that the data elements are correct. These course data elements will be reported to the Management Information System (MIS). While no regulatory requirement mandates that these elements be listed in the course outline of record, good practice suggests that MIS elements should be included as part of the local curriculum review and submission process either within the COR or as attachments and that faculty should be involved in the determination of these elements. Criteria for Data Elements include the following:

DED NO	DATA ELEMENT NAME
CB01	Course Department and Number
CB02	Course Title
CB03	Course TOP Code
CB04	Course Credit Status
CB05	Course Transfer Status
CB06	Units of Credit – Maximum
CB07	Units of Credit – Minimum
CB08	Course Basic Skills Status

CB09	Course SAM Priority Code
CB10	Course Cooperative Work Experience Education Status
CB11	Course Classification Status
CB13	Educational Assistance Class Instruction (Approved Special Class)
CB21	Course Prior to Transfer Level
CB23	Funding Agency Category
CB24	Course Program Status

TITLE 5—STANDARDS FOR APPROVAL

Title 5 contains seven standards for approval that apply to degree-applicable credit courses, four of which also apply to nondegree-applicable credit courses. Grading policy, units, intensity, and prerequisites and corequisites apply to all credit courses. Basic skills requirements, difficulty, and level apply to degree-applicable credit courses only. These standards are the criteria by which the faculty member's intention to ensure quality will be assessed for college or pre-college level instruction.

Intensity, difficulty, and level are not reflected as discrete elements in the course outline of record but rather are met within the totality of the course outline.

Degree-Applicable Courses

For degree-applicable courses, difficulty calls for critical thinking, understanding, and application of concepts at the college level, and intensity sets a requirement that most students will need to study independently, possibly for periods beyond that of the total course time defined by the units. The outline should build the case that students will be required to study independently outside of the class time. Reading, writing, and other outside assignments qualify to fulfill both study time as defined in the credit hour and the independent study required to demonstrate intensity. A faculty member who creates a course based solely upon laboratory or activity or lecture time with no designated outside study time will still need to demonstrate a depth and breadth of student learning that requires student effort beyond class time. The level standard requires college-level learning skills and vocabulary.

Nondegree-Applicable Courses

For nondegree-applicable credit courses, the intensity standard requires instruction in critical thinking and refers to the preparation of students for the independent work they will do in degree-applicable courses, including the development of self-direction and self-motivation. The level standard is not required for nondegree-applicable courses, but factors such as the units standard should reflect course workload variations appropriate to the developmental level of the students. Nothing prohibits a nondegree-applicable course from having elements that meet these two standards.

Standards for Approval for Noncredit

The standards for approval of noncredit courses places the burden upon the curriculum committee for determining that the level, rigor, and quality is appropriate for the enrolled students. Where appropriate, these standards for approval are included in each element under the sub-heading “Regulatory Requirements—Title 5.”

Required Elements of a COR per Title 5 §55002

The Chancellor’s Office review process requires the submission of a course outline of record that meets the standards for courses established in §55002 of Title 5 and contains, at minimum, the following elements:

1. Unit Value
2. The expected required number of contact hours
3. Requisites
4. Catalog description
5. Objectives
6. Content
7. Required reading and writing assignments
8. Other outside-of-class assignments
9. Instructional methodology
10. Methods of evaluation

DISCIPLINE ASSIGNMENT

Assigning Courses to a Discipline

Each course must be assigned by the local curriculum committee to an appropriate discipline or disciplines. This assignment helps describe the course by classifying it in a discipline and also indicates the minimum qualifications required to teach the course. This discussion should be part of the curriculum committee’s regular meetings regarding placement of courses.

Minimum Qualifications

Assignable disciplines are those that appear in the publication *Minimum Qualifications for Faculty and Administrators in California Community Colleges*, also known as the “Disciplines List.” Generally, a course is assigned to a single discipline. However, some courses may be cross-listed or placed in two or more disciplines. For example, a course on the sociology of aging may be appropriately assigned to either the discipline of sociology or the discipline of psychology, meaning a faculty member meeting the

minimum qualifications of the discipline to which it is assigned would be able to teach the course. In the case of a course assigned to the disciplines of both sociology and psychology, the faculty member teaching the course would need to meet the minimum qualifications in both disciplines. Some courses can also be listed in the interdisciplinary studies discipline, which is the combination of two or more disciplines. In such a case, the faculty member must meet the minimum qualifications of one of the disciplines listed for interdisciplinary studies and have completed upper division or graduate courses in at least one of the other disciplines listed.

Minimum Qualifications for Noncredit Courses

Noncredit minimum qualifications are also discussed in *Minimum Qualifications for Faculty and Administrators in the California Community Colleges*. However, noncredit minimum qualifications are established in Title 5 §53412 rather than in the Disciplines List. The assignment of noncredit courses to these areas should be approved by the curriculum committee just as it is done in credit instruction. Again, this process ensures that faculty with the appropriate expertise will teach the course, whether it is credit or noncredit.

Title 5 does not require that discipline assignment designations be contained within the course outline of record, but these assignments do need to be monitored, and the COR is a convenient location that will provide appropriate direction to those who would assign faculty to teach the course. The ASCCC's adopted position is that discipline designation should be an element of the COR. The ASCCC paper *Qualifications For Faculty Service In The California Community Colleges: Minimum Qualifications, Placement Of Courses Within Disciplines, And Faculty Service Areas* (2004) states, "For clarity and as a convenient reference, discipline designations should appear on course outlines of record." Such an indication in the COR can also be an effective practice to prevent confusion in multi-college districts.

ELEMENTS THAT APPLY TO CREDIT COURSES

UNIT VALUE AND CONTACT HOURS

Units, Credit Hours and Learning

A course outline of record that is well integrated will have built a solid case for the number of units granted for the learning achieved by a successful student. The definition of a credit hour requires a minimum of 48 semester or 33 quarter hours of lecture, laboratory or activity, or study time or any combination thereof. Faculty developers of courses designed for transfer and for some highly regulated career-technical fields need to refer to applicable standards, as they may require specific ratios of lecture, lab, and study time. Faculty must be thoughtful about units and contact hours, taking into account elements including student need, potential effects on financial aid eligibility, enrollment priorities, and other concerns.

Variable Credit Hours

Title 5 regulations also provide for variable unit courses. Such courses include work experience, activity courses where the number of units can vary from term to term, and skill courses where a student registers for the number of units he or she anticipates completing. The *Program and Course Approval Handbook* indicates that colleges may award credit in increments of one half unit or smaller but that they may not approve credit courses with zero units of credit (5th edition, page 81). Calculations for each increment of credit awarded by the college represent the minimum threshold for awarding that increment of credit. Students are awarded the next increment of credit only when they pass the next minimum threshold.

Because of the unique nature of these courses, colleges take different approaches to how variable unit calculations are implemented locally. A faculty member who is unfamiliar with variable unit courses should seek guidance from his or her curriculum committee chair or other appropriate college personnel, especially when calculating variable hours for courses that students may repeat.

Standard Formula for Credit Hour Calculation

Standards for credit hour calculations are contained in Title 5 §§55002.5, 55002. (a)(2)(B), and 55002(b)(2)(B). Courses not classified as cooperative work experience, clock hour, or open entry/open exit use the following method for calculating units of credit:

Divide the total of all student learning hours, which is the combination of total contact hours (lecture, lab, activity, clinical, TBA, or other) and outside-of-class hours, by the hours-per-unit divisor and round down to the nearest increment of credit awarded by the college. The following definitions are used in the application of this formula.

- ♦ Total contact hours refers to the total time per term that a student is under the direct supervision of an instructor or other qualified employee as defined in Title 5 §§58050 - 58051. This number is the sum of all contact hours for the course in all calculations categories, including lecture, recitation, discussion, seminar, laboratory, clinical, studio, practica, activity, to-be-arranged, etc. Contact hours for courses may include hours assigned to more than one instructional category, such as lecture and laboratory, lecture and activity, or lecture and clinical.
- ♦ Outside-of-class hours are the hours a student is expected to engage in coursework outside of the classroom. Federal and state regulations for credit hour calculations are based on the total time a student spends on learning, including outside-of-class hours. As a matter of standard practice in higher education, lecture and related course formats require two hours of student work outside of class for every hour in-class. All other academic work, including laboratory, activity, studio, clinical, practica, TBA, etc., must provide an equivalent total number of student learning hours as typically required for lecture, with the ratio of in-class to outside-of-class work prorated appropriately for the instructional category. This ratio is reviewed by accrediting commissions to ensure that it is in compliance with federal regulations regarding credit hours.

Typically, these ratios are expressed as follows:

Instructional Category	In-class Hours	Outside-of-class Hours
Lecture (lecture, discussion, seminar and related work)	1	2
Activity (activity, lab w/ homework, studio, and similar)	2	1
Laboratory (traditional lab, natural science lab, clinical, and similar)	3	0

Variations or ratios for inside- to outside-of-class hours are possible but should fall within the parameters for one unit of credit as described above. Standard expectations in higher education for credit hour calculations generally align with the in-class to outside-of-class ratios as described in this table. Deviations from these widely accepted standards, while permitted, can negatively affect course transferability and articulation and should be used with caution. Since TBA hours are required to be listed separately on the COR, any outside-of-class hours expected of students in relationship to TBA contact hours must be included in the total student learning hours for the calculation.

- ♦ The hours-per-unit divisor is a value, or value range, used by the college to define the number of hours required to award each unit of credit. This value must be minimum of 48 and maximum of 54 hours for colleges on the semester system and a minimum of 33 and maximum of 36 for colleges on the quarter system. This number represents the total student learning hours for which the college awards one unit of credit. Colleges may use any divisor within this range but should maintain consistency between the divisor and the dividend. For example, if a college uses a 51 hours = 1 unit calculation to determine the hours of lecture and outside of class work in the dividend, it should use 51 as the divisor. Colleges that indicate the minimum and maximum range of 48 – 54 should show that same range for the dividend in the equation and resulting unit calculation.

The credit hour calculation would be expressed as an equation as follows:

$$\frac{[\text{Total Contact Hours} + \text{Outside-of-class Hours}]}{\text{Hours-per-unit Divisor}}$$

Hours-per-unit Divisor

The result of this calculation is then rounded down to the nearest .5 increment or to the nearest fractional unit award used by the district if smaller than .5. This formula applies to both semester and quarter credit calculations. While the formula can yield a value below the lowest increment of credit awarded by the college, zero-unit courses are not permissible. See Appendix I for the memo from the Chancellor's Office regarding the standard formula for credit hour calculations.

Colleges must exercise caution in determining the hours-per-unit divisor for credit hour calculations. Because California finance laws assume that primary terms average 17 weeks on the semester system and 112/3 weeks on the quarter system, with two semesters or three quarters equaling the traditional 35-week academic year, and because student attendance and related apportionment state compliance

auditing is based on the student contact hours delineated in the official COR, the Chancellor's Office strongly recommends that colleges use the 18-week semester or 12-week quarter as the basis for the student contact hour calculation used in the COR, even if a college has been approved to use a compressed academic calendar. This practice indicates the use of 54 semester or 36 quarter hours. The 18-week semester or 12-week quarter primary term provides the greatest flexibility in terms of contact hours, and colleges do not risk an audit finding for excessive apportionment claims such as they might experience using a 16-week semester basis for the contact-hour calculation.

Additionally, the flexible calendar program is designed around the 35-week traditional academic calendar, so basing contact hour targets around an 18-week semester assures that instructional hours lost to flex activities will not result in the district failing to provide the minimum number of hours required by Title 5 §55002.5 to award a unit of credit. Colleges using the 48-hour minimum calculation for determining credit hours risk problems with apportionment calculations and audits. Colleges must be specifically authorized by the Chancellor's Office to use a compressed calendar, which adds further caution to the use of the minimum end of the hour to unit range.

Likewise, the activity or laboratory with homework calculation should be used with caution. In the natural sciences and other disciplines, standard practice is to base the number of units awarded for laboratory solely on contact hours, even though the course may involve some expectation of student work or preparation outside of class. Any alteration of this relationship for laboratory courses in the natural sciences and clinical hours in many allied health fields can jeopardize programmatic accreditation where specific ratios or hours are required for program components or course acceptability in meeting major or general education requirements when transferred to a baccalaureate degree-granting institution. Use of this category should be restricted to only those instructional areas where it is clearly aligned with accepted practices of higher education. The term "activity" as used in this context is not intended to limit or define the use of this term locally. Some colleges use this term—and related credit calculations—interchangeably with laboratory.

The course outlines of record for many districts do not specify outside-of-class hours, relying instead on the assumption of traditional ratios for inside- to outside-of-class hours for lecture, laboratory, or other course formats. In instances where districts only record total contact hours for the course as a whole or in each instructional category on the COR, the course submission must include the expected hours of student work outside of class used to determine total student learning hours for the purposes of credit calculations as described above. The ratio table presented earlier in this section provides guidance for the expected outside-of-class hours for a wide range of typical credit hour calculations.

Fractional Unit Awards and Minimum Thresholds

The fifth edition of the *Program and Course Approval Handbook* states that "a district may choose to award units of credit in increments of one half or smaller" (page 81). Calculations for each increment of credit awarded by the college represent a threshold of student learning hours for awarding that increment of credit. Students are awarded the next increment of credit only when they pass the next threshold of student learning hours.

For example, if a course is designed to require 180 total student learning hours (36 lecture, 72 lab, and 72 outside-of-class hours), the calculation of units works as follows:

$$180/54 = 3.33$$

3 units of credit

In this example, the college would not award 3.5 units until the total student learning hours reached the 189-hour minimum threshold for 3.5 units. However, if a college offers credit in .25 unit increments, this example would yield a 3.25 unit course. Another common example is a course offered for 40 contact hours with no hours of homework, resulting in 40 total student learning hours. In a district that awards credit in .5 increments, $40 \text{ total student learning hours} / 54 = .74$, which meets the minimum threshold for .5 units of credit, but does not pass the minimum threshold for 1 unit of credit. In this example, 40 total student learning hours (36 contact and 4 outside-of-class) would award .5 units of credit. This calculation is similar to grading systems where, for example, a student earns a “B” for any percentage between 80 and 89. The student is only awarded an “A” when he or she reaches the minimum threshold of 90%.

Cooperative Work Experience

Units for Cooperative Work Experience courses are calculated as follows in Title 5 §55256.5:

Each 75 hours of paid work equals one semester credit, or 50 hours equals one quarter credit.

Each 60 hours of non-paid work equals one semester credit, or 40 hours equals one quarter credit. These minimums have been interpreted by the Chancellor’s Office but are currently under review and may be subject to change.

Clock Hour Courses and Programs

The definition of a clock hour program and the standards for awarding of units of credit for these programs are defined in federal regulations 34 CFR §668.8(k)(2)(i)(A) and 668.8(l) respectively. In this regulation, a program is considered to be a clock-hour program if the program is required to measure student progress in clock hours under the following conditions:

- ♦ Receiving federal or state approval or licensure to offer the program; or
- ♦ Completing clock hours is a requirement for graduates to apply for licensure or the authorization to practice the occupation that the student is intending to pursue.

Programs that meet this definition are required to use a federal formula for determining the appropriate awarding of credit as outlined in 34 CFR §668.8(l).

Local Policy

A standing policy or formal calculation document helps districts fulfill the responsibility of local governing boards under Title 5 §55002 to establish the relationship between units and hours for the local curriculum development and approval process and provides that information for accreditation purposes.

PREREQUISITES, COREQUISITES, ADVISORIES, AND OTHER LIMITATIONS ON ENROLLMENT

Demonstrating and Documenting Need

Justification of prerequisites requires documentation, and colleges have generally developed forms for the various types of evidence. This evidence can take many forms: equivalent prerequisites at UC or CSU, content review, legal codes mandating the requisite, or data collection and analysis. While these forms are not required to be part of the course outline, they are often attached as documentation of the process having been completed. Subdivision I.C.3, A, 2(a)vii of the *Model District Policy on Requisites* (Chancellor's Office, 1993) strongly advises that districts "maintain documentation that the above steps were taken," and additional guidelines were released by the Chancellor's Office for Title 5 §55003 in 2012. A simple method for achieving this record is to retain the content skills scrutiny documents for each requisite course.

Content Review

All courses with requisites or advisories must document the requisite skills which have been established through content review in a separate section of the course outline. The primary goal of identifying requisites and providing advisories is to facilitate student success. A content review process should document that connection by showing how the skills achieved in the requisite course are fundamental to success for most students taking the receiving course. The writing style of the prerequisite skills section is the same as that for the objectives. The section usually begins with a phrase such as "Upon entering this course, the student should be able to" followed by a list of those entry skills, expressed using active learning verbs following a taxonomy such as Bloom's. In its simplest form, a content review consists of comparing the entry skills list with the objectives of one or more courses to identify courses that would be appropriate requisites. This list of entry skills is also very useful in determining articulation pathways for students coming from other institutions or life experiences.

If a course has more than one requisite course, effective practice is to have separate lists for each one, which may make tracking their validation easier. For example, if an advanced physics class has both a calculus and a pre-calculus physics prerequisite, this section would have two separate lists.

Content Review, Statistical Validation, and Communication/Computation Requisites

For programs specializing in communication and computation, requisites may be placed on courses using a content review process alone, without a need for statistical validation. Since 2011 colleges have been allowed by Title 5 to place communication and computation prerequisite courses on non-communication and non-computation courses through a content review process alone provided that the district meets specific criteria explained in Title 5 §55003(c). If the conditions of this section are not met, colleges must follow the same guidelines that exist for establishing prerequisites in all other areas, which require statistical validation using “the compilation of data according to sound research practices” per Title 5 §55003(f). For example, an English course having a prerequisite of a lower-level English course may validate this need through content review. A business course requiring that same lower-level English course may also use content review to establish the prerequisite if the requirements of Title 5 §55003(c) have been met; if these requirements are not met, the college may establish the prerequisite through a combination of content review and statistical validation. Further information regarding prerequisites for communication and computation can be found in the *Chancellor’s Office Guidelines for Title 5 Regulations Section 55003* (2011).

Requisites and Articulation

When considering placing a requisite on a course, faculty should consider the impact that action may have on proposed or existing articulation agreements. When determining whether to grant articulation, receiving institutions will closely review any requisites on a course, or the lack of a requisite that they consider essential, as indicators of the scope and rigor of the course. Faculty should review parallel courses at the primary institutions for transfer in their region to be aware of requisite expectations local CSUs and UCs have on comparable courses. In addition to reviewing university courses, faculty should consider any requisites identified in course descriptors created through the Course Identification Number (C-ID) System.

Other Limitations on Enrollment

A course may have enrollment limitations other than prerequisites, corequisites or advisories. Some common limitations on enrollment are a requirement to pass a tryout prior to being enrolled in an athletic course or as a member of a team or a physical requirement where the student’s safety would be compromised by an inability to meet specific physical capabilities. While the specific criteria for the limitation does not have to be included in the course outline of record, such limitations should be well defined and be as measurably objective as possible. For example, a sight acuity limitation might include specific vision parameters and list any medical conditions that impose or exacerbate the limitation. If the limitation is a tryout for athletics, the criteria should be very specific and realistic to the demands of the activity. Thus, “be able to swim ten laps in a standard competition pool in under eight minutes” would be reasonable for a water polo tryout, but requiring this task be completed in less than two minutes would be extreme. All limitations on enrollment should be fair and reasonable and should produce consistent evaluation results.

CATALOG DESCRIPTION

The purpose of the catalog description is to publicly convey the content of the course in a concise manner. Because the catalog description is the primary way by which course information is disseminated, it should contain all essential information about the course and be written to meet the needs of varied audiences. Students need information to create their educational plans, as do counseling faculty advising them. Outside reviewers, such as accreditors and compliance monitors, base their assessments on the information printed in the catalog. The heart of the catalog description is the summary of course content, also referred to as the course description. The catalog description should be thorough enough to establish the comparability of the course to courses at other colleges, to distinguish it from other courses at the college, and to convey the role of the course in the curriculum of a program, where applicable, in regards to progression of rigor or other characteristics that distinguish a course in the program. A statement about the students for whom the course is intended can assist students in their educational planning. Examples of this type of information include “first course in the graphic arts major” or “intended for students in allied health majors.” To save space, many colleges use phrases rather than complete sentences in the catalog or the schedule of classes. Course descriptions should also include the course’s C-ID number if applicable.

Units, Hours, and Credit Status

The catalog description should contain the units, hours, prerequisites, transferability, and credit status of the course. Unit limitations should be specified, such as “no credit for students who have completed Math 101A” and “UC transferable units limited.” Hours are typically listed on a COR on a per week basis and may be broken down by type: for example, “3 hours lecture, 3 hours lab, 1 hour discussion.” The types of hours may also be listed as activity or studio hours in appropriate courses.

Variable unit courses should show the hours as variable: for example, “1-3 hours lecture, 1-3 units.” However, some colleges’ CORs show the total hours of instruction for the term rather than the weekly hours. This practice is particularly useful for courses offered in a variety of short-term formats as well as for work experience courses. However, for regularly scheduled courses, listing weekly hours more clearly and directly serves the primary audience.

In addition to listing the number of hours per week or total hours per term, the description may specify courses regularly offered on a short-term basis as well: “9-week course” or “Saturday course; see page xx for more information.” Some colleges include the terms in which the course will be offered, such as “summer only.” Some courses designated as repeatable may be taken multiple times if appropriate criteria are met. In the case of a repeatable variable unit course, the description may need to list total units that may be earned by repetition. For example, a COR might say, “Variable Units - May be repeated; students may not exceed 16 units.” All courses must follow unit and credit hour requirements of Title 5 §55002.5.

Courses may be offered on a letter grade basis only, on a Pass/No-Pass basis only, or on a letter grade or Pass/No-Pass basis at the option of the student. Generally, course credit is assumed to be awarded on a letter grade basis unless indicated otherwise through catalog statements such as “pass/no pass

only” or “pass/no pass option.” Courses are also assumed to be degree applicable unless otherwise noted as “non-degree applicable credit course” or “noncredit course.” However, some districts may separate catalogs into credit and noncredit sections due in part to their organizational structure and the relative size of their noncredit programs.

Requisites and Transferability

Prerequisites, corequisites, and advisories can be listed in conjunction with placement assessment alternatives along with limitations on enrollment as well as any other skills required or recommended. The following are examples of ways in which requisites might be included on a COR:

- ♦ Prerequisite: Completion of French 1A with a ‘C’ or better
- ♦ Corequisite: Geology 10
- ♦ Prerequisite: Math 24 (with a ‘C’ or higher) or appropriate skills demonstrated through the math placement process
- ♦ Advisory on Recommended Preparation: Eligibility for English 1A
- ♦ Advisory: High school biology with a “B” or better is recommended
- ♦ Advisory: Reading level 3 (see p. 17)
- ♦ Limitation: Enrollment limited by audition

Catalog descriptions commonly include the transferability of the course, usually by indicating “UC,” “CSU,” or “UC, CSU” as appropriate at the end of the catalog description. Such a notation indicates only general transferability for elective credit and does not guarantee articulation to meet a major or general education transfer requirement. Transferability status may require one or more years to establish, so local practice may call for the faculty member to indicate this intent on a proposed COR, but catalog descriptions should only be so modified when course transferability has been determined through formal articulation processes.

Field Trips, Required Materials, and Other Expenses

Field trips, required materials for the course, and other probable expenses should be listed in the catalog description. This practice alerts students to possible costs that may influence their decision to enroll in the course. Per Title 5 §59400(b), colleges may not charge a general materials fee if students do not walk away with a physical object or permanent access to some body of knowledge as they would with a book. While this listing can be fairly generic in the course description, it should be more specific in the overall COR.

College Catalog Course Description Checklist

The following is a checklist of items that should appear on all course outlines of record:

- ♦ Course number and title
- ♦ Status (degree applicable/non-degree applicable)
- ♦ A content or objective description
- ♦ Course type (lecture, lab, activity, special topics, etc.), contact hours, and units
- ♦ Prerequisites, corequisites, advisories, and other enrollment limitations
- ♦ Fulfillment of a major, area of emphasis, or GE requirement if appropriate
- ♦ Transferability
- ♦ Field trips or other potential requirements beyond normal class activities
- ♦ Required materials
- ♦ C-ID Number

OBJECTIVES

The objectives of a course are the primary components and skills leading to student achievement and the course's intended purpose. The objectives should specify these components and skills to ensure that all faculty delivering the course share a common understanding and can therefore enable students to achieve the intended student learning outcomes across all sections and terms in which the course is taught. Objectives should be written in complete sentences or comprehensive phrases using language that is discipline specific and demonstrates the level of rigor appropriate for the class.

The COR should demonstrate that the course meets the standards for level and intensity in both quantity and effort as appropriate for the number of units and hours assigned to the course. The faculty member designing the course will need to determine a reasonable time frame for most students entering at the requisite levels to acquire capabilities defined by each objective.

The format for each objective typically begins with the phrase "Upon completion of this course, the student will be able to... ." These items are sometimes referred to as "behavioral objectives." These objectives can be measured through a range of assessments, including the use of rubrics to measure performance quality in writing, computation, or other skills.

Course Objectives and Student Learning Outcomes

Course objectives state the concepts or skills faculty introduce to students in a course or program in order to prepare students to meet a student learning outcome (SLO). Objectives are the means, not the ends. Course SLOs are the intended abilities and knowledge students can demonstrate after successfully completing the course objectives. SLOs must be written in measurable or observable terms and as actions that a student will perform in order to display the skills necessary to meet the SLO.

For example, for an introductory swimming course, the course objectives might consist of all four competitive swimming strokes; the course SLOs will measure the student's ability to perform all four strokes. The following is an example of a course objective that supports an SLO for a swimming course:

Course objective:

Demonstrate proper breathing techniques and arm position for the backstroke.

SLO:

Swim the backstroke for at least ten yards.

In this example, a student can demonstrate the SLO only after completing the objective.

Another example might be as follows:

Course objectives:

Demonstrate proper breathing techniques and arm position for the backstroke.

Demonstrate proper breathing techniques and arm position for the front crawl.

Demonstrate proper breathing techniques and arm position for the breaststroke.

Demonstrate proper breathing techniques and arm position for the butterfly.

SLO:

Swim all four strokes of the medley relay for 25 meters each within 3 minutes.

In this example, all four objectives provide the scaffolding of skills the students need to be able to demonstrate an SLO; the SLO synthesizes the content and skills learned by completing all the objectives.

Writing Objectives and the COR

When writing objectives for a new course, the author should begin with the end in mind. The purpose of the course in terms of what students should be able to do after completing the course should be expressed in the course SLOs. Once the author has determined the outcomes expected, he or she can then determine what concepts or formative skills must be learned before students can perform the outcomes. Hundreds of specific learning objectives might potentially be appropriate, but not every objective must be listed. The objectives can be distilled down to a manageable number, commonly no more than 20 for a typical one- to three-unit course and often fewer than ten that are based on the major areas of content and most important skills a student should learn. The key is grouping individual items into sets with shared commonalities. For example, a sociology course might have many detailed items for students to learn in the area of cross-cultural comparisons, but the collective statement in the objectives section might be “compare and contrast traditions and behaviors in a variety of cultures.” A chemistry class might take two or three weeks to discuss the properties of the various states of matter, but the objective might be summarized as “research and diagram the properties of the states of matter, use appropriate equations to calculate their properties, and explain those properties

on the molecular level.” In this last example, the statement is really a collection of objectives rather than a single objective and may be a potential SLO for the course; if it was modified to include how students would apply those objectives, it would be an SLO.

Critical Thinking in the Course Objectives

Degree-applicable credit courses require students to demonstrate critical thinking. The incorporation of critical thinking must be evident throughout the course outline but particularly in the objectives, methods of instruction, and methods of evaluation elements. Students must clearly be expected to think critically, be instructed in how to do so, and be held accountable for their performance; however, not all objectives need to reflect critical thinking. Critical thinking involves active higher cognitive processes which analyze, synthesize, and evaluate information. These activities contrast with more passive activities such as recognizing, describing, or understanding information. The manner in which the objectives section reflects critical thinking in the higher cognitive domains is by expressing the objectives using verb rubrics or a taxonomy of thinking and learning skills such as Bloom’s Taxonomy. Simply listing such higher skills in the objectives is not sufficient; the COR must demonstrate that students are taught how to acquire these skills and must master them in order to pass the class in the sections regarding methods of instruction, assignments, and methods of evaluation.

For non-degree applicable credit courses, the requirement for critical thinking is different, but it still exists, and the same guidance still applies. The difference is that in these courses students are initially being taught how to think critically; in degree applicable courses, the expectation is that students are already able to think critically and are now improving their abilities. Because of this difference, the objectives in non-degree applicable courses may cover a narrower scope because students are in the process of learning effective ways to study and think critically. However, the objectives should prepare students for studying independently and must “include reading, writing assignments and homework” (see Title 5 §55002(b)2(C) Intensity–below).

Regulatory Requirements Reflected in your Objectives

Each of the standards listed below should be reflected in the group of objectives chosen for the course, but each objective does not need to meet all or any of these standards. For example, every objective need not target the critical thinking requirement. Thus, “list proper safety protocols for handling toxic fluids” may not meet the difficulty standard, but it is still an appropriate objective. However, the group of objectives as a whole should address all the standards. Additionally, the objectives should in some way pair in terms of need with the requisite entry skills if those skills are listed. A course objective that calls for a student to be able to work with differential equations should properly pair with the entry-level skills of Calculus I and Calculus II.

The following are regulatory standards, with their Title 5 citations, that must appear in the course objectives:

Prerequisites and Corequisites §55002 (a)(2)(D)

When the college and/or district curriculum committee determines, based on a review of the course outline of record, that a student would be highly unlikely to receive a satisfactory grade unless the student has knowledge or skills not taught in the course, then the course shall require prerequisites or corequisites that are established, reviewed, and applied in accordance with the requirements of this article.

Intensity §55002(a)(2)(C) (Degree applicable credit)

The course treats subject matter with a scope and intensity that requires students to study independently outside of class time.

Difficulty §55002(a)(2)(F)

The coursework calls for critical thinking and the understanding and application of concepts determined by the curriculum committee to be at college level.

Level §55002(a)(2)(G)

The course requires learning skills and a vocabulary that the curriculum committee deems appropriate for a college course.

Intensity §55002(b)(2)(C) (Non-degree applicable credit)

The course provides instruction in critical thinking and generally treats subject matter with a scope and intensity that prepares students to study independently outside of class time and includes reading and writing assignments and homework. In particular, the assignments will be sufficiently rigorous that students successfully completing each such course or sequence of required courses, will have acquired the skills necessary to successfully complete degree-applicable work.

CONTENT

The course content section, also known as core content at some colleges, is commonly formatted as an outline. The content topics are typically arranged with major headings and minor subheadings or bulleted lists of elements that further define the major heading. The outline is detailed enough to fully convey the topics covered but not so lengthy that a quick scan cannot be used to ascertain the scope of the course. A page or two is fairly typical.

The content listed in the course outline is required to be covered by all faculty teaching the course unless it is marked as optional. However, the listed content does not limit instructors from going beyond the topics in the outline.

Major Headings and Sub Headings

Content is subject based, so it need not be written in terms of student capabilities or behavior. However, the major headings of content should be clearly relevant to the objectives. For example, if a content item major heading for an anthropology course were “osteology,” this topic might be expanded upon in the subheadings in the following way:

Course Content

I. Osteology

- Major bones of the human skeleton and the correct positions
- Composition and shape classes of bone
- Pathologies
- Skeletal differences between males and females
- Determining age from dental and skeletal cues
- Advantages and constraints of bipedalism

Repeatability and Core Content

Except in very limited circumstances, the content of a course may not be designated as repeatable for credit. Title 5 §55041 states that the content of a course may only be designated as repeatable if the course meets one of the following conditions: repetition of the course is necessary to meet the major requirements of CSU or UC for the completion of a bachelor’s degree, the course is designated as intercollegiate athletics as defined in §55000, or the course’s requirements involve participation in intercollegiate academic or vocational competition as defined in §55000. Courses that are designated as repeatable should be indicated as such on the COR, as Title 5 §55041 requires that such designations be indicated in the college catalog.

Courses Related in Content (Formerly “Course Families”)

Where repeatability is not applicable, local curriculum committees may designate course groupings for “active participatory courses” that are related in content where appropriate. Active participatory courses are those courses where individual study or group assignments are the basic means by which learning objectives are obtained. Courses that are related in content have similar primary educational activities in which skill levels or variations are separated into distinct courses with different student learning outcomes for each variation. Decisions regarding the grouping of courses related in content can be made locally by each college but should be recorded for purposes of organization and in some cases Title 5 compliance; therefore, an indication on the COR that a course is part of a grouping is good practice.

With very limited exceptions, students can only take each active participatory course once. In addition, Title 5 §55040 indicates that “each community college district . . . may not permit student enrollment in active participatory courses . . . in physical education, visual arts or performing arts that are related in content . . . more than four times for semester courses or six times for quarter courses. This limitation applies even if a student receives a substandard grade or “W” during one or more of the enrollments in such a course or petitions for repetition due to extenuating circumstances as provided in section 55045.” If any of the courses within a grouping of courses related in content are marked as repeatable, each transcribed enrollment in a repeatable course counts as one of the four allowable experiences within the set. The limitation of four experiences in a grouping applies only to active participatory courses in physical education, visual arts, or performing arts. Because of the enrollment limitation, courses in these areas that are designated as part of a grouping of courses related in content may be indicated as such on the COR and in the college catalog in order to ensure that students are aware of the limitation.

Course groupings or sets should provide students with an opportunity to build their knowledge, skills, abilities, and fitness levels in physical activity courses within a set of discrete individual courses. The need to develop leveled or distinct courses should be founded on these principles and should be done to ensure programmatic needs are met when appropriate. Course content for each course in a course set must be significantly different in level, intensity, and other standards even though the courses are related in content, including level-specific course objectives and outcomes.

A variation on leveling is to create courses with a more specific focus within an area of emphasis, which allows students to have similar learning experiences that develop key skills but do so using significantly different content. For example, some colleges may divide a “painting” area of emphasis into oil, acrylic, and watercolor courses or separate out relief printmaking from intaglio, lithography, or screen-printing. Both curricular and pedagogical justifications exist for this approach. The primary concern with such an approach is that receiving institutions, UC and CSU in particular, typically do not divide the curriculum in this way. Most schools in the CSU or UC systems only require one or two courses in any given medium for major transfer preparation. Local faculty should work closely with their articulation officers to assess the potential impact of this approach on students preparing to transfer.

Local curriculum committees should be conservative in making decisions regarding sets of courses related in content and should avoid creating numerous overly specific sets that closely mirror each other’s content. The definition of “courses that are related in content” is not intended to be so narrow that it becomes inhibiting or useless, but neither is it intended to allow colleges to proliferate levels and active participatory courses. More information regarding courses related in content can be found in the *Chancellor’s Office Guidelines on Course Repetition* (2013).

Methods of Instruction

The Title 5 sub-section defining the course outline does not mandate a comprehensive list of instructional methods. Rather, the outline must “specify types or provide examples.” Thus, faculty have the academic freedom to select instructional methods to best suit their individual teaching styles. The methodologies used by each instructor are to be consistent with, but not limited by, these types and examples. In all cases, the methods of instruction should be presented in a manner that reflects both integration with the stated objectives and a likelihood that they will lead to students achieving those objectives. A faculty member may also consider using the course student learning outcomes to identify methods of instruction, since those skills and abilities faculty will assess at the end of the course may be modeled through instructional methods.

In many cases, the environment in which the learning occurs may be described by listing potential methods of instruction the faculty have agreed are effective for the specific content, objectives, and outcomes. While any course should be crafted to accommodate for differences in setting, many courses such as lab courses rely heavily upon their environment as a critical element of the learning experience. However, this environment should be framed in the context of types and examples, such as “the student will conduct clinical patient evaluations in a hospital environment” versus “the student will evaluate live patients in the emergency room of St Mary’s Hospital.”

Delineating the methods of instruction tends to imply a description of what the instructor will be doing to facilitate learning. While such information may be included, the focus of the methods should be on describing the activities the students will be doing and experiences that lead to learning, not only with respect to the instructor but in some cases with respect to each other and with their environment. For example, what a student will do in a communication studies course’s instructional component to interact as a presenter and as an active listener are learning elements that are part of the methods of instruction. The description of the methods of instruction clearly lays the groundwork for developing or refining the evaluation methods and criteria.

The requirement to “specify types or provide examples” is incorporated into the course outline by some colleges as a list of options to select, either by checking a box or choosing from a drop-down list. This approach does not fully meet all Title 5 requirements because the oversimplification of teaching methods to a menu of options does nothing to illustrate the methods for determining “whether the stated objectives have been met by students” and does not effectively cross validate or integrate the other course outline elements.

Examples of assignments and methods of instruction and evaluation must be appropriate to the stated objectives and be meaningful for assessing student learning outcomes. In particular, because the learning experiences must either include critical thinking or experiences leading to this capability, the methods of instruction must effectively teach critical thinking and the methods of evaluation must effectively evaluate students’ mastery of critical thinking. The themes established by the objectives must be integrated into methods of instruction and evaluation. The following table shows examples of methods of instruction that support specific course objectives:

Examples of Course Objectives	Examples of Methods of Instruction
Interpret and compare dramatic texts as both written plays and in live performance, including works by a variety of playwrights which represent the influence of diversity such as of gender, cultural background, class, sexual preference, and historical period.	Performances of selected dramatic texts followed by instructor-guided interpretation and analysis.
Observe and analyze the various components of a theatrical performance.	Readings of dramatic texts by the instructor and students followed by instructor-guided interpretation.
Differentiate between the play as literature and the play as performance.	Attendance at required performances preceded by instructor-modeled performance review methods and followed by in-class and small group discussions.
Evaluate the effectiveness of theatrical techniques in performance.	Project group meetings in class to develop play interpretation project and group presentation.
Analyze the artistic, literary, and cultural perspectives of various playwrights, including, North American, South American, African, Asian, and European.	In-class and out-of-class video and audio presentations followed by instructor-guided interpretation, analysis, and comparison to live performances.
Analyze and evaluate live theatre as a dynamic art form in comparison to recorded performances in film and television.	Lecture presentations on the organization of theatrical companies followed by in-rehearsal and backstage visits at required performances.

These examples demonstrate that choosing a type or example of a method of instruction from a drop-down list misses an opportunity to provide more detailed expectations of instructional rigor for both faculty and students. Instead of a list of prescriptive options, the writing style is descriptive of each possible activity. Rather than just checking “lecture,” the faculty member has described the complete interaction with the student in terms such as “readings of dramatic texts by the instructor and students followed by instructor-guided interpretation and analysis.” Methods of instruction written this way for degree-applicable credit courses make clear that critical thinking and scholarship is expected of students at a collegiate level, taught to them in class, practiced in assignments, and evaluated as the basis for their grade in the class.

Methods of Evaluation and Course Grading Policies

As with methods of instruction, Title 5 does not mandate a comprehensive list of methods for evaluation; rather, the COR must again “specify types or provide examples.” The methods used by the instructor are to be consistent with, but not limited by, these types and examples. In all cases, the methods of evaluation should be presented in a manner that reflects integration with the stated objectives and methods of instruction and demonstrates a likelihood that they will lead to students achieving those objectives.

Using Multiple Methods of Evaluation

Effective and accurate student evaluation is not a simple task nor one to be treated as an afterthought to the other outline elements. Given the diverse populations community colleges serve, multiple methods of evaluation are usually preferred. While knowledge of required material, as reflected in assignments and methods of evaluation, constitutes a significant portion of the evaluation, different types of courses as well as differing facilities lend themselves to various types of evaluation. For example, lab courses are often environments conducive to oral interviews or practical demonstrations of skills, whereas a large lecture hall with fixed seating is not, and the availability of each is impacted by available facilities and resources at the college.

Methods of Evaluation and Critical Thinking

Because learning experiences in college courses must either include critical thinking or experiences leading to this capability, methods of evaluation must effectively assess students' mastery of critical thinking. For this reason, the themes, concepts, and skills established by the objectives must be integrated into methods of evaluation, keeping in mind that difficulty standards for degree applicable credit, non-degree applicable credit, and noncredit courses vary significantly, particularly in terms of critical thinking.

The following table shows examples of methods of evaluation that support specific course objectives:

Examples of Course Objectives	Examples of Methods of Evaluation
Define and demonstrate an understanding of general theatre terminology.	Evaluation of written analyses for content, form, and application of dramatic performance review techniques.
Observe and analyze the various components of a theatrical performance.	Evaluation of contributions during class discussion.
Interpret and compare dramatic texts as both written plays and in live performance, including works by a variety of playwrights which represent the influence of diversity (such as of gender, cultural background, class, sexual preference, and historical period).	Evaluation of participation in and contributions to group projects.
Differentiate between the play as literature and the play as performance.	Evaluation of written criticisms for content, form, and application of critique methodology.
Evaluate the effectiveness of theatrical techniques in performance.	Evaluation of performance reviews for completeness, personal perspective, and application of performance review styles.
Examine the organization of theatrical companies and compare and contrast the roles of theatre personnel, e.g., producer, director, dramaturge, technical director, actors, choreographer, critic, artistic director, development staff, scenographer and designers, and house manager.	Evaluation of interpretations of live performances and dramatic texts for cultural context, contrasts in live and textual impact, and performance techniques.
Analyze and evaluate live theatre as a dynamic art form in comparison to recorded performances in film and television.	Evaluation of final written essay examination and occasional tests for content, terminology, knowledge of subject matter, and ability to compare and contrast types, origins, and presentation modes of dramatic material.

Attendance and Evaluation

Some courses and programs, including programs with outside agency certifications, have very strict attendance requirements. Therefore, students who fail to log a stipulated number of hours of attendance may be ineligible to receive certification for program completion. This requirement in turn obliges faculty to include attendance as a necessary component in evaluation.

On the whole, Title 5 emphasizes that attendance is not in itself a substantive basis for student evaluation. Title 5 §55002(a)(2)(A) states, “The grade is based on demonstrated proficiency in subject matter and the ability to demonstrate that proficiency, at least in part, by means of essays, or, in courses where the curriculum committee deems them to be appropriate, by problem solving exercises or skills demonstrations by students.” Students must be assessed on their ability to demonstrate proficiency in meeting the course objectives. Attendance is not part of a course subject matter or a discipline specific skill and therefore may not be separately assessed as part of the course curriculum.

However, Title 5 §55002(a)(2)(B) states, “The course grants units of credit based upon a relationship specified by the governing board between the number of units assigned to the course and the number of lecture and/or laboratory hours or performance criteria specified in the course outline.” Since college credit units are calculated in part based on a given number of hours spent in class, students who miss an excessive amount of class time cannot be said to have fulfilled the course requirements and may be dropped from the course. The manner and criteria by which excessive absences are calculated is not stated in Title 5 and is therefore generally determined by local policy.

In addition, one can reasonably argue that non-attendance, particularly during periods of proficiency demonstration, is legitimate grounds for a reduced or failing evaluation. Because class participation is one of the ways in which students demonstrate their proficiency with class material, and students who have not attended class have therefore not participated in class discussion, many instructors include “attendance and participation” as a factor in determining a course grade. This aspect of the grading criteria cannot be used to override all others, but it can be factored into a grade, especially if the participation is in part demonstrated by students through the completion of specific in-class activities, assignments, and quizzes.

Finally, an instructor may feel that certain required topics, affects, or attitudes cannot be evaluated by typical assessment practices. An example is an aspect of professionalism, such as repeated tardiness or absences, which may need remediation through academic consequences. However, these factors should be given careful consideration and be well justified. In these cases, attendance requirements and the subsequent evaluation thereof should be clearly laid out in the appropriate section of the syllabus.

Assignments

Title 5 §55002(a)(3) requires assignments in the COR but does not mandate a comprehensive list, nor does it mandate the way in which those assignments are written. Rather, the outline must “specify types or provide examples.” The assignments used by the instructor of record for a section of a course are to be consistent with but not limited by these types and examples. In all cases, the assignments

should be presented in a manner that reflects both integration with the stated objectives, appropriate rigor for the level and difficulty of the course, and a likelihood that the assignments will support students achieving the course objectives and the ability to perform the student learning outcomes.

Given the multiple audiences for a COR (students, instructors, articulation officers, university faculty), college faculty should discuss how assignments will be documented. Curriculum committees may consider whether a simplistic list of varieties of assignments rather than specific “types and examples” provides the various audiences of a COR with useful information or if a more stringent standard for writing examples of assignments is appropriate. For example, examples of assignments could be written similarly to an actual assignment prompt with the intended rigor of the course evident in the sample. When writing is required in a sample assignment, instructors should indicate expectations for the writing and the length of the assignment. Assignments may also be written to highlight skills and abilities listed in objectives. For example, a type of assignment could be “written assignments that show development of self-criticism.” In any case, the assignment types and examples should be written to show the level of rigor for the course, especially when the course requires college-level work or is a course in a grouping of courses that are distinguished by a progression of rigor.

When writing an assignment description for a COR, faculty should include the purpose of the assignment, including articulation and applicability for C-ID. For example, rather than simply stating “group project,” a theater faculty member could write, “Preparation of group projects in which major analytical questions are discussed and a major project designed around issues related to play interpretation in performance.”

Other Considerations for Assignments

In order to best suit the needs or purposes of the audiences of a COR, a variety of considerations should be kept in mind. In some situations, optional and alternate assignment examples should be included to provide options that improve access to coursework for all students. For example, an alternate assignment may be allowed in lieu of a required field trip or a cost-bearing assignment such as theatre tickets in order to ensure equitable access to learning experiences among all students. In addition to examples of alternate assignments, CORs can contain examples of out-of-class assignments. If so, those examples must be sufficient to show independent work equal in rigor to the expected hours of independent study determined in the hours to units formula to meet the minimum study time hours of work per week beyond class time for each unit of credit. Examples of assignments might also include any supplemental reading beyond the required texts if the faculty author of the course sees a need to codify the material on the COR. Finally, while assignment examples are not required to be organized within the COR in the order they would normally be used in class, giving some thought to this practice can promote an implementation strategy that leads to a more effective learning experience.

The following table shows examples of assignments that provide appropriate evaluation to support specific course objectives:

Objective	Assignments Written as Types	Assignments Written as Examples
Define and demonstrate an understanding of general theatre terminology.	Participation in class discussions about plays.	Working with several classmates in a group, review a list of theater terms and provide a two-to-three sentence definition of each.
Interpret and compare dramatic texts as both written plays and in live performance, including works by a variety of playwrights which represent the influence of diversity (such as of gender, cultural background, class, sexual orientation, and historical period).	Textual analysis in discussion and writing and required study of assigned dramatic texts, including works representative of diverse gender, ethnic, and global perspectives.	Read August Wilson's <i>Fences</i> and write a three-page essay on the concept of masculinity in the play.
Observe and analyze the various components of a theatrical performance.	Written analysis of several live performances of amateur and professional theatres presented during the academic term.	Write a three-page analysis of a local theater production which focuses on the elements of lighting and blocking.
Observe and analyze the various components of a theatrical performance.	Preparation of group projects in which major analytical questions are discussed and a major project designed around issues related to play interpretation in performance.	The class will be divided up into groups of 4-6 people. As a group, you will become theatre personnel and will perform a series of functions that every theatre must have, including choosing a play to produce and doing all that needs be done in order to produce it.
Differentiate between the play as literature and the play as performance.	Listening and viewing. Study of plays on videotape (DVD) and audiotape. Preparation for participation in daily analysis of texts and performances by watching video performances of a play currently being read by the class.	Watch Hamlet's "To Be or Not To Be" soliloquy from the 2000 Ethan Hawke version of <i>Hamlet</i> and write a one-page essay describing how the stage direction found in Shakespeare's text is realized in the film.
Evaluate the effectiveness of theatrical techniques in performance.	Interpretive analyses of published critical reviews of performances and plays.	Read the excerpt provided from the "Writing for the Stage" chapter of Vaclav Havel's <i>Disturbing the Peace</i> and discuss his opinions on his own technical achievements and failures.

Required Texts And Other Instructional Materials

Instructional materials have evolved with technology, including required texts and other materials in the classroom to support the curriculum. While Title 5 §55002 does not require that materials be listed on a COR, it does indicate that "resource materials" are a criterion that must be considered by a curriculum committee prior to recommendation for approval. Title 5 §59400(b) and (c) specify regulations for electronic materials that should be considered when placing required materials on a COR. Fully electronic materials should comply with all 508 compliance rules for disabled student access.

Materials Other than Books

While Title 5 does not directly address other required learning materials beyond reading assignments, the required texts and other materials section of the COR should also include any required software, supplies, or other equipment such as a sports item, lab equipment, tools, art materials, or anything else the student must have to participate effectively in the course.

Required Materials and Articulation

Primary textbooks and resource materials specified on a COR play a central role in the articulation of a course. Any required materials should be clearly recognized by faculty in the discipline at other institutions as a major work that presents the fundamental theories and practices of the subject. Required texts can also identify the rigor of a course, especially in courses within a program sequence or a grouping of courses.

The currency of textbooks is an important consideration for articulation and can vary greatly from subject to subject. Some courses may use reference manuals that are long standing icons of their respective fields. On the other end of the spectrum, UC and CSU generally require texts that are no more than five to seven years old. Some C-ID descriptors require certain types of materials or texts as well. Explanations should be provided when texts are more than five years old. In STEM disciplines or any course that uses a required lab manual created by faculty, faculty should include the manual on the COR and they should be encouraged to update it regularly; the same is true for any kind of electronic materials required in either a face to face or online course.

Materials for Courses Officered via Distance Education

For courses that are available for distance education instruction, educational materials appropriate for that teaching modality should also be included on the official COR either as required or as options for instructors. In addition, in both face-to-face courses and distance education courses faculty may choose to use digital materials that are available at no or low cost to students, often referred to as open educational resources (OER). OER are freely accessible, openly licensed documents and media that are useful for teaching, learning, and assessing as well as for research purposes. OER materials should be vetted by faculty in the discipline prior to adoption as required materials. Official statements from both CSU and UC articulation officers are forthcoming regarding the acceptance of OER textbooks for articulation, but faculty should ensure that the materials they choose will allow for transferability.

DETERMINING LEVELS BELOW TRANSFER AND CB 21 RUBRICS

Basic skills status is an important discussion that must take place on each campus among discipline faculty and administrators. Curriculum committees should work with discipline faculty members to consider the college mission and the courses that make up their degrees. The courses must be compliant with Title 5, which indicates that anything used for a degree or transfer cannot be coded as basic skills.

Basic Skills and Title 5

While Title 5 does not allow basic skills courses to be coded as degree applicable, degree applicable courses can be below transfer. Title 5 §55062 states that courses may be degree applicable if one of the following items applies:

- ♦ All lower division courses accepted toward the baccalaureate degree by the California State University or University of California or designed to be offered for transfer.
- ♦ Courses that apply to the major or area of emphasis in non-baccalaureate career technical fields.
- ♦ English composition or reading courses not more than one level below the first transfer-level course. Each student may count only one such course below transfer level for credit toward the associate degree, (reading courses which also satisfy the requirements of subdivision (a) are not subject to this limit.) English as a Second Language (ESL) courses which teach composition or reading skills are not considered to be English composition or reading courses for purposes of this subdivision.”
- ♦ All mathematics courses above and including Elementary Algebra.
- ♦ Credit courses in English and mathematics taught in or on behalf of other departments and which, as determined by the local governing board, require entrance skills at a level equivalent to those necessary for the courses specified in subdivisions (c) and (d) above.

Local curriculum committees should be involved with the determination of what constitutes a basic skills course and make recommendations regarding basic skills status. While colleges may approach this conversation differently depending on their reasoning, alignment with existing degrees, and student populations, decisions about the parameters of basic skills courses and their designation should be under the auspices of the curriculum committee. While no universally accepted answers or formulas exist, a course cannot be considered basic skills if it is degree applicable, even if it is pre-transfer.

Pre-transfer Courses and Degree Applicability

Some colleges use pre-transfer courses for degrees and certificates that are part of career technical programs or for curriculum where transfer-level math or English is not considered standard. In such cases, even though a course is considered pre-transfer, it cannot be coded as basic skills if it is used

to complete degree requirements. Title 5 allows one course below transfer in English and reading to be degree applicable and two courses below transfer in math to be degree applicable (intermediate algebra and algebra). Courses outside of the major and general education patterns can also count towards the 60 semester units required for the associates degree.

Graduation requirements in English are transfer level. If a course in English is offered for credit and is one level below transfer, it can be degree applicable, but it is not adequate for degree completion. The course units can count towards the degree, but a student must complete transfer-level English to meet graduation requirements.

Aligning Basic Skills Curriculum with the CB 21 Rubrics

In determining levels below transfer, whether pre-transfer or basic skills, curriculum committees should work with discipline faculty to align a course with the CB 21 rubrics. The CB 21 rubrics are credit rubrics adopted by California community colleges to provide a matrix for comparing courses across the system and reporting student progress through basic skills. These rubrics are not comprehensive standards nor grading rubrics but rather are outcomes that should be evident at each level described. The rubrics have been universally defined by California community college experts based on research and nation-wide scans. The noncredit rubrics are defined to align with credit outcomes at each level. Importantly, the data element dictionary from the Chancellor's Office for CB 21 does not refer to "basic skills"; courses coded with CB 21 are courses prior to transfer. Assigning a CB 21 level does not always indicate that the course is basic skills. Some courses prior to transfer are degree applicable, and others are basic skills. The new CB 21 identifies those courses in a sequence that lead to transferable reading, ESL, English and math courses.

If a college has ongoing difficulty in determining the level of a course below transfer, the curriculum committee should work with discipline faculty to analyze existing prerequisites or advisories to aid in the determination of where a course falls on the CB 21 rubric levels. In addition, if the rubrics raise questions about existing prerequisites or advisories, discipline faculty may need to examine data concerning student success along the pathway and re-evaluate the current curricular pathways.

Determining College Level Coursework

While Title 5 §55062 speaks directly to the courses below transfer that may be included as degree applicable, colleges are permitted to decide which courses they feel are college level. Title 5 §55002(b) (1) lists other types of courses that may be non-degree applicable credit courses:

- ♦ Courses designed to enable students to succeed in degree applicable credit courses (including, but not limited to, college orientation and guidance courses, and discipline-specific preparatory courses such as biology, history, or electronics) that integrate basic skills instruction throughout and assign grades partly upon the demonstrated mastery of those skills;

- ♦ Precollegiate career technical preparation courses designed to provide foundational skills for students preparing for entry into degree applicable credit career technical courses or programs;
- ♦ Essential career technical instruction for which meeting the standards of degree applicable credit courses is neither necessary nor required.

ELEMENTS THAT APPLY TO NONCREDIT COURSES

General Notes

Unlike credit courses, which may cover a wide array of disciplines and topics, noncredit instruction is limited to nine areas stipulated by Education Code §84757. Given these restrictions, a faculty member must ask at the onset of creating a course outline of record whether the credit or noncredit option best supports student access and success. One local question that needs to be decided is whether the COR should be the same for credit and noncredit courses. Some of the elements listed in the previous section, “Elements That Apply to Credit Courses,” are in part repeated in the following pages, although these elements may not be identical. However, a faculty member considering the creation of a new course may wish to review both sections for additional ideas and to develop a broader context of curriculum development.

Only one standard for approval is mandated by Title 5 for noncredit courses, (§55002(c)(1)). This standard places the burden of rigor upon the local curriculum committee to determine that course elements detailed herein are appropriate for the intended students.

As with credit instruction, SLOs can act as a central component in the development of many elements of noncredit courses. Per the accreditation standards, assessment data collected by faculty on outcomes, along with other information, must be reviewed and used to create action plans intended to improve teaching practices and student success at the course and program levels. Many colleges use a data mapping process that links course student learning outcomes (CSLOs) found on the COR to program student learning outcomes (PSLOs) in order that the data collected at the CSLO level provides data for PSLO assessment. Given the importance of these links between the CSLOs and the PSLOs, faculty should begin course development and review of objectives and other elements of the COR with an analysis of how the CSLOs support student attainment of the PSLOs for those programs that include the course being reviewed. This process ensures that students taking the courses and performing the SLOs of those courses will also be able to perform the PSLOs for their programs.

Contact Hours

For noncredit curriculum, the expected total contact hours as used in student attendance reporting must be contained within the COR. While noncredit courses may provide for coursework outside of class time, it is not required; therefore, the contact hours listed on the COR for a noncredit class may encompass all of the course activities and learning time.

Catalog Description

The purpose of the catalog description is to convey the content of the course in a brief and concise manner. Because the catalog description is the primary way in which course information is disseminated, it should contain all essential information about the course. Noncredit courses are designed to meet the needs of specific groups or to achieve a specified objective. While all community colleges courses are open to all students, a course designed for a particular population should be advertised with that population in mind. “Childcare Skills for Parents,” for example, would be open to all but would be clearly described in the catalog as a course designed to meet the needs of this specific population.

Noncredit courses can play a prominent role in programs to demonstrate competency and completion; therefore, students need information about the courses for planning their programs, as do counseling faculty for advising them. Faculty, staff, and students at other colleges use catalog descriptions to evaluate the content of the courses that incoming students have taken at the originating institution. Outside reviewers who base their conclusions on the information printed in the catalog can include college accreditation visitation teams, matriculation site visitors, individual program accreditation reviewers, or credit faculty considering the allowance of a credit-by-exam.

Important Course Content and Educational Planning

The heart of the catalog description is the summary of course content. This information should be thorough enough to establish the comparability of the course to those at other colleges and to convey the role of the course in the curriculum as well as to distinguish it from other courses at the college. It should be brief enough to encourage a quick read and avoid confusing students with unnecessary detail. To save space in a catalog, many colleges use phrases rather than complete sentences. In writing descriptions for noncredit courses that may act as development for or prerequisites to credit courses, colleges may consider the catalog descriptions for the common receiving programs or institutions in order to clarify a logical pathway for students intending to pursue this route.

The catalog description of a noncredit course may include a statement about the students for which the course is intended in order to help students with educational planning. For example, the description might include the language “first course in the auto collision repair program,” “intended for students in health and safety education programs,” or “prepares students to successfully qualify for employment in the XYZ industry.” In addition, descriptions may include whether the course articulates or leads to credit coursework if such opportunities exist. Catalog descriptions should also list entry advisories and the courses for which the noncredit course provides preparation.

Schedule Flexibility in the Description

Noncredit courses are often offered in short-term or flexible formats such as open entry/open exit. The catalog description should describe term lengths and any attendance requirements that result from this scheduling. Pedagogical, logistical, or scheduling reasons may exist for which students would need to repeat a course or take two sections simultaneously. Since this flexibility can greatly benefit student

success, the faculty member writing the course outline should consider delineating those options in the catalog description. Many colleges include the scheduling parameters or terms in which a course is intended to be offered, such as “summer only,” or “weekend program.”

Course Expenses and Required Materials

Field trips, required materials for the course, and other probable expenses should be listed in the catalog description. This practice alerts students to possible costs that may influence their decision to enroll in a course. Under current regulation, colleges may not charge a general materials fee if students do not walk away with a physical object or permanent access to some body of knowledge as they would with a book and may not require online materials to which a student does not have access for a minimum period after the conclusion of the course.

Examples of Noncredit Course Descriptions

Several examples follow that illustrate some of the important elements of catalog descriptions:

Example #1: This example deals with the first course in a two course sequence. It describes the course, the intended students, and what the students’ expected entry-level skills should be. It also includes a general note that the students will be using a computer as a part of the course.

Beginning Citizenship

Advisory ESL: Intermediate I

This first class focuses on the development of spoken English skills and general knowledge of American History and United States Government. It prepares students for passing the written test to become a citizen of the United States. In this class, you will learn the following:

- ♦ U.S. History and government as they apply to the citizenship examination process.
- ♦ Basic skills and techniques used in oral interviews.
- ♦ The reading and writing skills required for testing to become a citizen.
- ♦ How to complete and submit the application for citizenship.
- ♦ What additional documentation you will need.
- ♦ (Note: students will be required to use computer-based testing to practice citizenship testing in this class. All computers and testing materials will be provided.)

Example #2: This example of a catalog description shows that the course is at an intermediate level and describes a required book purchase as well as the basic objectives of the course. If a noncredit course includes any required materials or equipment, the same guidance offered for credit courses earlier in this paper also applies to noncredit.

Citizenship Interview

Advisory ESL: Intermediate 2

This class follows the Beginning Citizenship class. It is designed to develop student interview skills for those who are waiting for their oral interview. Students should have at least an intermediate level of English reading, writing, and speaking skills. In this class, students will attempt the following:

- Practice interview questions related to the required documentation and forms.
- Practice interview questions related to the history and government of the U.S.
- Develop English dialog skills specific to the testing process.
- (Note: students will be required to use computer-based testing to practice citizenship testing in this class. All computers and testing materials will be provided.)

Example #3: This example is very clear regarding the expectations for incoming students and what the students should expect when taking this class. It specifically describes unusual logistical parameters while encouraging those who might be impacted by these factors.

Basic Math Skills

This beginning course is intended to cover basic arithmetic concepts beginning with the basic operations of addition, subtraction, multiplication, and division of whole numbers, fractions, decimals, and percentages. This course may be used for five credits in the High School Diploma program under subject (E) Mathematics. Required textbook may be purchased at the campus bookstore.

Example #4: The following catalog directions are very clear regarding the preferred campus for placement and registration. This point is particularly important in this case, because the intended student may not be the primary reader of this information.

English as a Second Language (ESL) Literacy

Advisory: Literate in native spoken language, semi-literate in native written language.

Students will be oriented to the classroom environment and the ESL learning processes. Class emphasis will be on oral English and development of introductory reading and writing skills. Class will take guided walks around campus to develop vocabulary and beginning conversational skills. Mobility challenged students are welcome.

Note: All ESL students please contact the campus counseling office at the following numbers or locations for each site. Plan to schedule an appointment to speak with a counseling representative for placement assessment and class registration. All students may speak

directly to a counseling representative by walking in to the counseling office of any campus during the hours of 9:00 a.m. - 4:00 p.m. Monday through Friday.

These examples illustrate the importance of providing, in the briefest form, the necessary information for students to plan for and meet their educational needs. The catalog must be clear and direct about both fiscal and logistical impositions any course may have.

Requisites

Requisites and advisories for noncredit should follow the same rules as those for credit courses, but Title 5 §55002 places no requirements around the establishment of them in noncredit instruction. However, the Title 5 section on requisites and advisories, §55003, does not differentiate between credit and noncredit courses. The process and need for developing and implementing requisites applies to all courses. In general, the purpose should be to provide either a requisite or some elementary guidance with a strong recommendation to seek counseling advisory services. The noncredit course faculty author should consult with the curriculum chair or other local resource to determine local policy. If local policy allows for requisites on noncredit courses, the faculty member should review the guidelines for prerequisite, corequisites and advisories.

College Catalog Course Description Checklist for Noncredit

The following elements must be included in the catalog course description for noncredit courses:

- ♦ Course number and title
- ♦ Status (noncredit versus credit or others)
- ♦ Content description
- ♦ Course type (lecture, lab, activity, special topics, etc.) and contact hours
- ♦ Prerequisites, corequisites, advisories, and other enrollment limitations
- ♦ Inclusion as an aspect of a certificate of completion or competency or high school graduation requirements
- ♦ Information on articulation or preparation for credit coursework
- ♦ Field trips or other potential requirements beyond normal class activities

The course description in the class schedule is generally an abbreviated version of that in the catalog and has no specific requirements under Title 5 regulation.

OBJECTIVES

The purpose of the objectives section on a noncredit course outline of record is to convey the primary components leading to student achievement of the course's intent and demonstration of the course's student learning outcomes. The objectives should highlight these components to ensure that course

delivery leads students to achieve the intended learning results and should bring to the forefront what must be focused on by any faculty member delivering the course. The definition of objectives and the distinction between objectives and student learning outcomes in noncredit are the same as those that were explained for credit courses earlier in this paper.

The format for each objective typically begins with the phrase “Upon completion of this course, the student will be able to...” These items are sometimes referred to as “behavioral objectives.” The hundreds of possible learning objectives do not have to be so thoroughly documented that each one is listed. The objectives can be distilled down to a manageable number, commonly no more than twenty and often less than ten. The key is grouping individual items into sets that share commonalities. For example, a citizenship course might have many detailed items for students to learn in the area of cross-cultural comparisons, but the collective statement in the objectives section might be “become familiar with traditions and behaviors in a variety of cultures.” An automotive class might take two or three weeks to discuss the processes for servicing fluids on a vehicle, but the combined learning objective might be summarized as “look up, print out, and complete a 3,000 mile service checklist for a late model automobile.” Each of these statements is really a collection of objectives rather than a single objective, and the focus highlights a level of learning that is appropriate to the skills being developed.

Unlike in credit courses, students enrolled in noncredit courses are not required to demonstrate or be assessed on critical thinking, and noncredit courses are not to prepare students directly for using skills in the cognitive levels normally associated with critical thinking. However, in some cases course objectives and outcomes may require that students demonstrate higher cognitive levels if the students are to be considered successful. While a noncredit student may not be required to achieve a significant mastery of critical thinking in one course, the groundwork for future noncredit and credit courses should be laid out such that if the students continue to practice, experiment, and learn, they will eventually become such a master. When reviewing the specific learning items and writing collective objective statements, faculty should consider the cognitive levels expected of students in each area.

CONTENT

The format used for the course content section of a COR is commonly that of an outline. The topics are typically arranged with major and minor headings. The outline is detailed enough to fully convey the topics covered but not so lengthy that a quick scan cannot be used to ascertain the scope of the course. A page or two is fairly typical.

Content listed in the course outline is required to be covered by all faculty teaching the course unless some aspects are marked as optional. However, the listed content does not limit instructors from going beyond the topics in the outline.

Content is subject based, so it need not be expressed in terms of student capabilities or behavior. However, the content should be obviously relevant to the objectives. If, for example, a content item for an auto body and painting course were “art forms and colors,” the item might appropriately be expanded upon to read, “Stylistic art forms and color considerations—relative to historical and current automobile designs.” This more detailed description would help to clarify the actual need for this aspect of the content.

Career Development and College Preparation (CDCP)

The enactment of the Community College Funding Legislation SB 361 in 2006 established the Career Development and College Preparation (CDCP) Program. Additional changes to funding through SB 860 in 2014 allowed for an expansion of this program. CDCP certificates can be offered in several areas of study. Colleges may offer noncredit programs of two or more courses to prepare students for employment or to be successful in college-level credit coursework.

Noncredit courses offered in the four distinct instructional domains of English as a Second Language (ESL), Elementary and Secondary Basic Skills, Short-term Vocational, and Workforce Preparation are eligible for enhanced funding when sequenced to lead to a Chancellor's Office approved certificate of completion or certificate of competency, in accordance with the provisions of the California Education Code §84760.5 governing Career Development and College Preparation (CDCP) programs.

METHODS OF INSTRUCTION

As with credit courses, Title 5 §55002(c)(2) requires the COR to specify instructional methods but does not mandate a comprehensive list of instructional methods. Rather, the COR must "specify types or provide examples." Thus, individual faculty members have the freedom to select instructional methods to best suit their teaching styles and support student success. The methodologies used by each instructor are to be consistent with but not limited by the types and examples of instructional activity included on a COR. In all cases, the methods of instruction should be presented in a manner that reflects both integration with the stated objectives and a likelihood that they will lead to students achieving those objectives and performing the SLO. Additionally, since noncredit courses focus more on skill building than the accumulation of units toward an award, they enjoy more flexibility in scheduling through options such as variable unit and open-entry/open-exit courses, and instructional methods on a COR should be equally flexible. Methods of instruction should also reflect an awareness of the various levels of preparedness students bring to a course, since many noncredit classes do not have prerequisites and are not part of a sequence of courses.

In many cases, the environment in which learning occurs needs to be described. While any course should be crafted to be as flexible as possible to accommodate differences in setting, many courses, such as lab courses, rely heavily upon their environment as a critical element of the learning experience. However, this environment should be framed in the context of flexible examples such as "The student will learn by demonstration and repetition to select the proper tools needed to complete the assigned task" rather than "The student will learn by demonstration and repetition to properly choose a #2 Phillips screwdriver, a 4 oz. ball peen hammer, and a pair of right-cutting tin snips to complete the assigned task."

Delineating methods of instruction tends to imply a description of what the instructor will be doing to cause learning. While such information may be included, the focus of the methods should be on describing what the students will be doing and experiencing, not only with respect to the instructor but in some cases with respect to each other and their environment. For example, describing what an ESL student will do in an instructional component about verbal dialog, to interact as a presenter and

as a listener, involves learning elements that are the methods of instruction, and such a description lays clear groundwork for developing or refining the evaluation criteria.

The following are examples of instructional methods that might be included on a COR and that are indicative of rigor and awareness of the various levels of preparedness and the flexible scheduling of a course:

Objective	Method of Instruction
Repair various types and grades of damaged sheet metal back to paint grade quality using common shop-hand tools.	Instructor will demonstrate the proper techniques of stretching and shrinking sheet metals for annealing and cold-working sheet metals. Students will practice and develop these skills using common shop-hand tools.
Define and demonstrate an understanding of U.S. history as it pertains to citizenship.	Students will review various in-class videos specific to this objective and will participate in in-class discussions prior to reviewing and completing the course workbook on the segment pertaining to U.S. History.
Define and demonstrate an understanding of the proper methods to safely secure a household from potential dangers to children under the age of ten.	In-class lecture and videos defining in-home safety hazards for children, after which students will complete in-class participation activities designed to promote a discussion about student experiences growing up around in-home hazards.
Develop a balanced and nutritious weekly menu and properly prepare and serve common nutritious meals in a safe and sanitary manner.	Lecture and reading assignments to develop a general understanding of basic human nutritional requirements, followed by a practical exercise in researching food costs among various food groups and across generic versus named-brand sources.
Develop a vocabulary of words commonly used in the field of child development along with a comprehensive understanding of the word usage and the ability to effectively pronounce and enunciate the learned vocabulary.	Introductory lecture followed by unlimited self-paced use of audio and video recordings coupled with numerous in-class language development practice/participation sessions.
Perform elementary arithmetic calculations within workplace scenarios such as properly counting back change or preparing a service order tabulation for a cost estimate.	Introductory lecture coupled with workbook practice sessions to develop calculation skills, followed by review of scenario videos demonstrating proper customer communication and resolution practices.
Recognize and identify various types of normal and abnormal behavior or symptoms in children and determine a proper course of action if such is warranted.	In-class review of several international documentaries of pandemic exposure of children to various unchecked health disasters, followed by in-class discussions and further lecture or reading about symptomology of common childhood ailments.

METHODS OF EVALUATION AND ATTENDANCE

Title 5 does not mandate a comprehensive list of methods for evaluation; rather, the COR must “specify types or provide examples.” The methodologies used by each instructor are to be consistent with but not limited by these types and examples. In all cases, the methods of evaluation should be presented in a manner that reflects integration with the stated objectives and methods of instruction

and that demonstrates a likelihood that they will lead to students achieving the course objectives and successfully meeting the course SLO.

Title 5 allows for the awarding of grades in noncredit courses, including courses that are a part of a high school diploma or may be accepted for credit by high schools. The grading policy for noncredit courses is defined in Title 5 §55021(c) and authorizes grading in noncredit if local policy allows it. However, in summer of 2016 the Board of Governors approved a change to Title 5 §55023 to allow an additional grading option for noncredit courses. This change provides the “Satisfactory Progress” (SP) grade as an option for colleges with noncredit courses, but its use is not mandatory. The options for grading thus include Pass (P), No Pass (NP), and Satisfactory Progress (SP).

The requirement for integrated objectives, methods of instruction, and methods of evaluation is no less challenging for noncredit than for credit courses due to the reactions of many noncredit students to an NP grade. Having failed is often seen not as an occasion to apply oneself and try harder but rather as a justification for not proceeding any further. Thus, a primary goal of evaluation in noncredit should be to help students learn how to be successful in spite of a single performance or sequence of performances that may be less than satisfactory.

The following table provides examples of course objectives in a noncredit course and appropriate methods of evaluation:

Objectives	Method of Evaluation
Repair various types and grades of damaged sheet metal back to paint grade quality using common shop-hand tools.	Evaluation of various practice pieces culminating in a color painting of the final project piece for subsequent evaluation and determination of flaws and their cause.
Define and demonstrate an understanding of U.S. history as it pertains to citizenship.	Students review, restudy, and reattempt workbook questions until responding successfully to a certain percentage of the questions.
Define and demonstrate an understanding of the proper methods to safely secure a household from potential dangers to children under the age of ten.	In-class evaluations by instructor and student participation in feedback sessions to provide a diverse spectrum of safety examples, concerns, and solutions.
Develop a balanced and nutritious weekly menu and properly prepare and serve common nutritious meals in a safe and sanitary manner.	Students implement the developed weekly menu for one week and self-evaluate using provided forms to report results in a class-reporting session.
Develop a vocabulary of words commonly used in the field of XXX along with a comprehensive understanding of the word usage and the ability to effectively pronounce and enunciate the learned vocabulary.	Evaluation of in-class participation as discourse becomes more sophisticated throughout the term of the course coupled to scenario practice with audio recordings for feedback and guided self-evaluation.
Perform elementary arithmetic calculations within workplace scenarios such as properly counting back change or preparing a service order tabulation for a cost estimate.	Students successfully complete three differing types of estimate and invoice preparations and transact them with the instructor or aide acting as the customer.
Recognize and identify various types of normal and abnormal behavior or symptoms in children and determine a proper course of action if such is warranted.	Reviewing videos or scenarios of children in normal settings. Students will correctly identify at least four abnormal conditions.

Attendance

Since noncredit courses by definition do not carry unit amounts, attendance is crucial to determining methods of evaluation. Therefore, student attendance requirements should be included in the COR. Per Title 5 §55002 (c)(2), the number of required student contact hours must be indicated on a noncredit COR and recorded by the instructor.

In regard to attendance for open entry/open exit courses, Title 5 §58164 (e) states, “The maximum number of hours a student may be enrolled in an open entry/open exit course shall be determined by the curriculum committee established pursuant to §55002 based on the maximum time reasonably needed to achieve the educational objectives of the course.” The maximum hours for the course should be included on the COR.

Because some programs with outside agency certifications have very strict attendance requirements, students who fail to complete a stipulated number of hours of attendance are ineligible to receive certification for program completion. This situation in turn obliges faculty to include attendance as a necessary component in evaluation. In these cases, attendance requirements and the subsequent evaluation thereof should be clearly laid out in the methods of evaluation section.

For many course objectives, one might have difficulty demonstrating that attendance is evidence of proficiency. On the other hand, one could reasonably argue that non-attendance, particularly during periods of proficiency demonstration, is legitimate grounds for a reduced or failing evaluation. Additionally, an instructor may feel that certain required topics, affects, or attitudes cannot be evaluated by typical assessment practices. An example is an aspect of professionalism such as repeated tardiness or absences, which may need remediation through academic consequences. However, these factors should be given careful consideration and be well justified. In these cases, attendance requirements and the subsequent evaluation thereof should be clearly laid out in the appropriate section of the syllabus.

ASSIGNMENTS AND OTHER ACTIVITIES

Title 5 §55002 establishes the requirement for assignments in the COR but does not mandate a comprehensive list; rather, the outline must “specify types or provide examples.” The assignments used by each instructor are to be consistent with but not limited by these types and examples. In all cases, the assignments should be presented in a manner that reflects both integration with the stated course objectives and a likelihood that they will lead to students achieving those objectives and the course SLO.

For many areas of study, the organization or sequence of learning is very important. While the assignments example are not required to be sequentially organized in the COR, such a practice can promote an implementation that leads to a more effective learning experience.

The purpose of each assignment should be connected to one or more objectives. In some cases, particularly at the lower cognitive levels, the objective and assignment appear identical or very similar.

For example, in an integrated COR the objective of being able to child-proof a house is in part learned by doing just that, i.e., making a house safe for children. A course may have several student performance expectations, and these expectations should be emphasized in class, practiced through various assignments, and evaluated as the basis for any feedback or potential certification.

The following table provides examples of courses objectives and appropriate assignments:

Objectives	Assignments
Repair various types and grades of damaged sheet metal back to paint grade quality using common shop-hand tools.	Using common shop-hand tools, the student will repair at least three different types or grades of damaged sheet metal back to paint grade quality.
Define and demonstrate an understanding of U.S. history as it pertains to citizenship.	The student will read and properly respond to questions in a course workbook in the subject area of U.S. history.
Define and demonstrate an understanding of the proper methods to safely secure a household from potential dangers to children under the age of ten.	Using a simulation scenario, the student will properly secure a household from potential dangers to children under the age of ten.
Develop a balanced and nutritious weekly menu and properly prepare and serve common nutritious meals in a safe and sanitary manner.	The student will develop a balanced and nutritious weekly menu within a specific budget that will include predefined nutrition parameters as assigned.
Develop a vocabulary of words commonly used in the field of XXX along with a comprehensive understanding of the word usage and the ability to effectively pronounce and enunciate the learned vocabulary.	Using the XXX vocabulary workbook, the student will participate in in-class narrations of words, sentences, and paragraphs contained within the lesson workbook.
Perform elementary arithmetic calculations within workplace scenarios such as properly counting back change or preparing a service order tabulation for a cost estimate.	Utilizing in-class scenarios, the students will prepare an invoice and estimate, properly tabulated, and will transact payment and correctly provide change to a customer.
Recognize and identify various types of normal and abnormal behavior or symptoms in children and determine a proper course of action if such is warranted.	Utilizing online research materials, the student will produce written descriptions of the symptoms of five common childhood ailments to include the flu, mumps and the measles.

RELEVANT ADDITIONAL COURSE OUTLINE ELEMENTS AND CONSIDERATIONS

Modality Of Instruction Distance Education

Per Title 5 §55206, in order to offer a section of a course fully online or in a hybrid format, a separate review process is required to ensure that the course taught at a distance follows the COR and to ensure quality through regular and effective instructor-student contact as established in Title 5 § 55204. This separate approval is not required to appear on the COR. Typically, the separate review is achieved through the use of a distance education addendum that establishes local criteria for authorizing a course to be taught using a distance education modality. However, a college that wishes to note approval of an addendum on the official COR may include distance education as an option among the methods of instruction on the COR. Including this note on a COR may be important, as the COR is the basis for articulation and all sections of a given course must achieve the same objectives regardless of instructional modality.

COURSE CALENDAR AND MAXIMUM CLASS SIZE

Title 5 is silent regarding both session or term lengths and maximum class enrollments or class sizes on the COR. Both of these elements are academic and professional matters; however, both are often issues that are negotiated between faculty collective bargaining units and the college administration.

Determining Appropriateness of Short-Term Offerings

Discipline expertise is the single most qualified source to appropriately determine whether offering a course in a shorter term or session is academically viable. While in most bargaining agreements the administration has the right of assignment and creates the schedule, curriculum committees should determine whether a course can be offered responsibly during a short session or term and make that determination known to the administration and to the local bargaining unit as academic calendars and terms or sessions are negotiated. ASCCC Resolution 9.09 So6 states that “when a course of three or more units is offered in a format of less than six (6) weeks, the course must be reviewed by the local curriculum committee prior to it being scheduled.” Curriculum committees should consult with discipline faculty in monitoring practices regarding shorter terms in order to diligently maintain high standards of rigor and quality. One way to do so would be to create formal policies on short-term course offerings at the college.

If a course is to be considered for a six or fewer week format such as in a summer session, or an even shorter time frame in a winter intersession, faculty should determine whether the course can be offered in a way that upholds standards and rigor. Faculty can consider the impact on a typical term’s workload or a student’s course load to determine whether teaching the course in a shortened time frame is academically feasible. For example, a five-unit course taught in a four-week format is equal to 133% of a faculty’s full-time load in most districts where a full load equals 15 class time hours per week in a traditional semester and would represent anywhere from a 133% to 150% load for the student. Under those terms, faculty can ascertain whether instructional quality is maintained for each and every student within that class regardless of any delivery constraints, including the viability of the total number of student learning hours during the shortened term. When making this determination, faculty should ask whether the shorter term would affect the opportunity for student success and the pedagogy of the course irrespective of who teaches the course or what types of services may or may not be available given the drastically shorter term.

In many districts the calendar itself is a negotiated item. Given the impact on course quality and the parameters set in a COR to ensure that quality, academic senate representatives and bargaining unit representatives preparing for such negotiations should engage in discussions related to the length of terms that include sound pedagogical parameters. These discussions should be based on legitimate research that demonstrates the fiscal or other pedagogical benefits of such adjustments.

Determining Appropriateness of Class Maximums

Maximum class enrollment numbers are also an area of shared purview between the academic senate and the collective bargaining unit. Indication of class size maximums on the course outline of record is not a Title 5 requirement, so the extent to which maximum enrollments are included on the COR and the role of the curriculum committee in determining those class maximums vary with different bargaining agreements. Curriculum chairs and senate leaders should have wide-ranging and honest discussions with representatives of the bargaining unit to develop a process for setting class maximums that places the interests of students as well as the pedagogical integrity of the courses at the forefront. The ASCCC paper *Setting Course Enrollment Maximums: Process, Roles, and Principles*, adopted in Spring 2012, provides more detailed information on criteria for setting class maximums and examples of effective practice from the field. Title 5 makes the recommendation in §55208 to consider curriculum committee review of class size for distance education courses. In some districts, the determination of class size by the curriculum committee has been negotiated by collective bargaining units in conjunction with local academic senates. However, before any discussion is held or decision is made for setting class maximums, proper documentation of the agreement for each course is crucial to maintaining the integrity of the standard during the life of the COR.

Discussion Between Senate and Bargaining Unit

If bargaining language or district policy language on either the calendar and length of terms or maximum class enrollments is not satisfactory or is leading to scheduling or enrollment situations which do not seem pedagogically sound, the curriculum committee chair should initiate discussions between the local senate president and bargaining agent. In cases where district policy and contract language calls for a committee review and various signatures, clear policy should be established for how to proceed when a disagreement occurs.

Other Local Elements

During the process used to develop or revise a COR, the course may need to be reviewed by other disciplines. Other departments or colleges in a district may need to be aware of pending changes in order to mitigate unintended consequences. Many colleges have a practice of requesting discussion between disciplines or departments if a course might be seen as encroaching on more than one discipline; for example, both the theater arts and mass communications departments might be consulted before a film studies course is approved. Colleges in a multi-college district might have a process for discussion of courses that are common or similar between colleges in the district to provide broader academic opportunities for students.

In addition, the Chancellor's Office considers good practice to include discussion of curricular changes with a college's library faculty and staff in order to ensure that appropriate and adequate library materials and services are available to support the course.

Some other locally required data elements may be needed for the local curriculum management or tracking system that are not normally included in the COR itself, such as the course's active or inactive status, multi-college district curriculum approval elements, GE area requirements for CSU GE Breadth, IGETC, or local patterns, and inclusion of C-ID Numbering.

GENERAL CURRICULUM CONSIDERATIONS

Local Processes and Autonomy

Education Code §70902 authorizes academic senates as the primary recommending faculty body in the area of curriculum, while Title 5 §55002 requires the creation of local curriculum committees that are charged with approving courses and programs. Credit courses are certified by the curriculum chair and the chief instructional officer. However, district governing boards are the final approving body, and the California Community College Chancellor's Office is tasked with ensuring compliance and chaptering locally approved credit curriculum.

Course and Program Approval

For individual credit course approvals, including stand alone courses, the Chancellor's Office can waive the requirement for statewide approval through a certification process that attests to the fact that college curriculum committees, their parent senates, and their governing boards are in compliance with standards set forth in the *Program and Course Approval Handbook* (CCCCO, 6th edition). As a result, these courses can be locally approved.

Because the Chancellor's Office maintains the authority to approve new programs for degrees and certificates, CORs must be submitted with program approval requests. The Chancellor's Office is also required, according to Title 5 §55150 (a), to approve all noncredit courses.

More information about the development of certificates and degrees, as well as the requirements for Chancellor's Office program approval, can be found in the *Program and Course Approval Handbook*.

Program Review and the Course Outline of Record

The COR plays a critical role in the ongoing process of program review, which is how a college keeps its curriculum relevant and allocates its resources appropriately. When a college has an effective comprehensive planning process in place, the results of program reviews generally drive most other college decision-making. The COR is a critical element of any program review process because it lays the foundation for all learning needs such as facilities, equipment, supplies, and staff. Additional guidance on the broader subject of program review can be found in the ASCCC publications *Program Review: Developing a Faculty Driven Process* (ASCCC, 1996) and *Program Review: Setting a Standard*

(2009). The requirement for cyclical program and course assessment and review does not come solely from Title 5 or the Education Code; it is also a central requirement of the Accrediting Commission for Community and Junior Colleges for remaining an accredited institution. The presence of effective program review processes can ensure that CORs and other materials are kept up to date and relevant.

To streamline the course approval process, colleges should recognize that not all changes in the COR are of equal impact. Full curriculum committee review should apply only to those changes that require re-evaluation of criteria to assure that standards in Title 5 and the *Program and Course Approval Handbook* continue to be met. To that end, the Academic Senate for California Community Colleges suggests the following guidelines for curriculum committee action on proposed course changes.

Full Review by the Curriculum Committee: Substantive Changes

Full review means a complete analysis of the entire COR by the curriculum committee and a motion for approval by the full committee. The following substantive changes should trigger a full review:

- ♦ A major change in catalog description, objectives, or content that alters the need or justification for the course or calls into question the ability of the course to meet standards in Title 5 or the *Program and Course Approval Handbook*
- ♦ A change in units or hours
- ♦ A change in number of repetitions
- ♦ A change in credit/noncredit status
- ♦ A change in prerequisites, corequisites, or advisories
- ♦ A change in modality, such as distance education
- ♦ Course delivery in a highly compressed time frame
- ♦ Offering a course in experimental status
- ♦ Determination of imminent need to initiate expedited approval
- ♦ Placement of a course in a general education pattern
- ♦ Basic skills status

All proposals should be submitted with the written rationale for the change.

Approved on the Consent Agenda: Minor Changes

Changes that do not appear to affect statutory or regulatory curriculum standards but require judgment to confirm this conclusion can be placed on the consent agenda for a full curriculum committee vote. A prior review of these items should take place to ensure that the changes are such that standards are not affected. At most colleges, this review can be done by division faculty or a technical review subcommittee of the curriculum committee, but it should not be an administrative review alone.

Members of the full curriculum committee are expected to read the revised and previous course outlines and the accompanying rationale and may pull the item from the consent agenda for discussion if necessary. Otherwise, no comment is needed prior to a full committee vote.

The ASCCC recommends that the following minor changes to the COR be approved on the consent agenda as recommended either by vote of the division faculty or the technical review subcommittee or through whatever vetting process is agreed upon by the committee:

- ♦ Minor, non-substantive changes in catalog description, objectives, or content
- ♦ A change in course number that falls within college policy
- ♦ A change in course title
- ♦ Adding or dropping the course from an associate degree or certificate program, which must continue to be of two year or less duration

Again, a written rationale should accompany all proposed changes.

Information Item Only/No Action: Technical Changes

Some changes are technical in nature and require no review other than that of curriculum specialists and technicians who assist faculty to make the changes in the official COR. Others are within the areas of the COR for which a variety of methods are permissible provided that the course objectives are met and the course content covered.

The ASCCC recommends that the following changes be accepted as information items only, with no action required, upon the advice of the division or department faculty or technical review committee. Revised course outlines should be transmitted so that the course file can be kept up to date.

- ♦ Non-substantive changes in term length, as long as the hours-to-units relationship is maintained
- ♦ Changes in texts or instructional materials
- ♦ Changes in the sections on methods of instruction, assignments, or methods of evaluation as long as these changes are minor and would not trigger the need for a separate review or re-evaluation such as is required for ensuring regular effective contact in distance education and as long as the course continues to enable students to meet its objectives and fully covers the stated content.
- ♦ Addition of a focus area to a special topics course

CALIFORNIA'S EDUCATION SEGMENTS' ROLES AND STUDENTS

Articulation among California's segments of education is an important consideration in the development of curriculum and especially the COR, since the COR is the document most heavily relied on to establish articulation agreements. The process of articulation means to transition, or step from one rung of the learning ladder to another in an organized manner. This process can take place from high school directly to a university, or it can be a many-staged process such as high school to noncredit to community college to a four-year university to a post-graduate university.

Course Identification Numbering (C-ID) System and Associate Degrees for Transfer

With the mandate established by AB 1440 in 2010 for associate degrees for transfer (AA-T and AS-T degrees), the Course Identification Numbering (C-ID) System has provided course descriptors and numbers for most of the courses that are used in Transfer Model Curricula (TMC). C-ID identifies comparable courses and provides an independent number, different from the control number assigned by the Chancellor's Office, to those community college courses that are commonly transferred to universities. That number is based on a course template called a "descriptor" that is developed by discipline faculty in the CSU and community college systems. Colleges are required to submit their CORs for approval if a course is to be included in an Associate Degree for Transfer. Faculty should consider this system when developing courses or revising them and should review the appropriate course descriptor to ensure that their course meets the requirements to qualify as a C-ID course. Additional information can be found on the C-ID website (c-id.net).

CSU GE BREADTH AND IGETC

The California State University General Education Breadth and the Intersegmental General Education Transfer Curriculum are general education standards by which community college students can fulfill the lower division general education requirements of the university segments prior to transfer. Individual courses are submitted for consideration by community colleges and reviewed by committees consisting primarily of CSU and UC faculty. Faculty must be aware of which features of the COR can assist in conveying the essential depth, breadth, quality, and appropriateness of a course as related to these general education standards. Communication with a college's articulation officer is crucial in these areas. Courses can fail to receive approval for certification in a general education area for a variety of reasons, including a failure to meet subject matter requirements, a narrowness of focus, or a failure to demonstrate sufficient quality, currency, and completeness.

Detailed requirements for qualifying courses for CSU GE Breadth or IGETC, along with the IGETC Standards, can be found on the ASSIST website (www.assist.org). In addition, college articulation officers are familiar with these requirements and will be able to assist a faculty member writing or updating a COR.

CONCLUSION

Title 5 §55002 gives curriculum committees the responsibility for recommending to the local governing board in areas regarding curriculum, including new or modified course approval, grading policies, prerequisites, and others. This Title 5 section states that the curriculum committee “shall be either a committee of the academic senate or a committee that includes faculty and is otherwise comprised in a way that is mutually agreeable to the college and/or district administration and the academic senate.” CORs are central to what is taught in the classroom, regardless of modality or discipline, and thus the creation and vetting of course outlines of record must be done by faculty members. While others may be involved in the process, including curriculum specialists and administrators, the faculty must take the professional responsibility as well as primary leadership to ensure that CORs are pedagogically sound. Ultimately, the creation and approval of course outlines of record must be for the benefit of students, must be a collaborative process involving faculty and staff, and must ensure that the highest standards for curricular quality and rigor are met.

APPENDIX I: CHANCELLOR'S OFFICE MEMORANDUM ON THE STANDARD FORMULA FOR CREDIT HOUR CALCULATIONS

STATE OF CALIFORNIA

BRICE W. HARRIS, CHANCELLOR

CALIFORNIA COMMUNITY COLLEGES CHANCELLOR'S OFFICE

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DATE: October 2, 2015 AA 15-26
VIA E-MAIL

TO: Curriculum Instructional Officers

FROM: Pamela D. Walker
Vice Chancellor of Educational Services

SUBJECT: **Policy Change for Hours and Units Calculations for Credit Courses**

The Chancellor's Office, in collaboration with the Program and Course Approval (PCAH) Writing Team, has refined the calculations and guidelines for hours and units for credit courses and will be in the forthcoming 6th edition of the PCAH.

Chancellor's Office staff has tested the new formula on credit courses currently in Curriculum Inventory and the calculations are accurate. As of October 5, the Chancellor's Office will be using the new formula for existing credit courses in the queue. However, if the formula does not work for a course then the Chancellor's Office will provide technical assistance as needed with the colleges. As colleges develop courses, please use the new calculations and guidelines for hours and units for credit courses (copy attached).

Please contact Jackie Escajeda, Interim Dean of Curriculum and Instruction at jescajeda@cccco.edu, if you have any questions regarding this memorandum.

cc: Kathleen Rose, SACC
Erik Shearer, SACC
Julie Adams, ASCCC
Elias Regalado, California Community Colleges Chancellor's Office
AAD Staff, California Community Colleges Chancellor's Office



California Community Colleges Chancellor's Office Hours and Units Calculations

I. Standard Formula for Credit Hour Calculations

Standards for credit hour calculations are contained in title 5 §§55002.5, 55002(a)(2)(B), and 55002(b)(2)(B). Courses not classified as cooperative work experience, clock hour, or open entry/ open exit use the following method for calculating units of credit.

Divide the total of all student learning hours (lecture, lab, activity, clinical, TBA, other + outside-of-class hours) by the hours-per-unit divisor, round down to the nearest increment of credit awarded by the college. Expressed as an equation:

$$\frac{\text{[Total Contact Hours + Outside-of-class Hours]}}{\text{Hours-per-unit Divisor}} = \text{Units of Credit}$$

The result of this calculation is then rounded down to the nearest .5 increment or to the nearest fractional unit award used by the district, if smaller than .5. This formula applies to both semester and quarter credit calculations. While this formula can yield a value below the lowest increment of credit awarded by the college, zero-unit courses are not permissible. The following definitions are used in the application of this formula:

- Total Contact Hours:** The total time per term that a student is under the direct supervision of an instructor or other qualified employee as defined in §§58050 - 58051. This number is the sum of all contact hours for the course in all calculations categories, including lecture, recitation, discussion, seminar, laboratory, clinical, studio, practica, activity, to-be-arranged, etc. Contact hours for courses may include hours assigned to more than one instructional category, e.g. lecture and laboratory, lecture and activity, lecture and clinical.
- Outside-of-class Hours:** Hours students are expected to engage in course work outside of the classroom. Federal and state regulations for credit hour calculations are based on the total time a student spends on learning, including outside-of-class hours. As a matter of standard practice in higher education, lecture and related course formats require two hours of student work outside of class for every hour in-class. All other academic work, including laboratory, activity, studio, clinical, practica, TBA, etc. must provide an equivalent total number of student learning hours as typically required for lecture, with the ratio of in-class to outside-of-class work prorated appropriately for the instructional category.

Typically, these ratios are expressed as follows:

Instructional Category	In-class Hours	Outside-of-class Hours
Lecture (Lecture, Discussion, Seminar and Related Work)	1	2
Activity (Activity, Lab w/ Homework, Studio, and Similar)	2	1
Laboratory (Traditional Lab, Natural Science Lab, Clinical, and Similar)	3	0

Other categories or ratios for inside- to outside-of-class hours are possible, but should fall within the parameters for one unit of credit as described above. Standard expectations in higher education for credit hour calculations generally align with the in-class to outside-of-class ratios as described in this table. Deviations from these widely accepted standards, while permitted, can negatively affect course transferability and articulation and should be used with caution. Since TBA hours are required to be listed separately on the COR, any outside-of-class hours expected of students in relationship to TBA contact hours must be included in the total student learning hours for the calculation.

- **Hours-per-unit Divisor:** The value, or value range, used by the college to define the number of hours required to award each unit of credit. This value must be minimum of 48 and maximum of 54 hours for colleges on the semester system and a minimum of 33 and maximum of 36 for colleges on the quarter system. This number represents the total student learning hours for which the college awards one unit of credit. Colleges may use any divisor within this range, but should maintain consistency between the divisor and the dividend. For example, if a college uses the $51 = 1$ unit calculation to determine the hours of lecture and outside of class work in the dividend, they should use 51 as the divisor. Colleges that indicate the minimum and maximum range of 48 – 54 should show that same range for the dividend in the equation and resulting unit calculation.

Colleges must exercise caution in determining the hours-per-unit divisor for credit hour calculations. Because California finance laws assume that primary terms average 17-weeks on the semester system and 11½ weeks on the quarter system (the two semesters or three quarters equal the traditional 35-week academic year), and because student attendance and related apportionment state compliance auditing is based on the student contact hours delineated in the official COR, the Chancellor’s Office strongly recommends that colleges use the 18-week semester or 12-week quarter as the basis for the student contact hour calculation used in the COR, even if a college has been approved to use a compressed academic calendar. The 18-week semester or 12-week quarter primary term provides the greatest flexibility in terms of contact hours, and colleges do not risk an audit finding for excessive apportionment claims such as they might experience using a 16-week semester basis for the contact-

hour calculation. Additionally, it is also important to note the flexible calendar program is designed around the 35-week traditional academic calendar, so basing contact hour targets around an 18-week semester assures that instructional hours lost to “flex” activities will not result in the district not providing the minimum number of hours required by Title 5, section 55002.5, to award a unit of credit. Colleges using the 48-hour minimum calculation for determining credit hours risk problems with apportionment calculations and audits. Colleges must be specifically authorized by the Chancellor’s Office to use a compressed calendar, which adds further caution to the use of the minimum end of the hour to unit range.

Likewise, the activity or laboratory with homework calculation should be used with caution. In the natural sciences and other disciplines, it is standard practice to base the number of units awarded for laboratory solely on contact hours, even though there may be some expectation of student work or preparation outside of class. Any alteration of this relationship for laboratory courses in the natural sciences and clinical hours in many allied health fields, can jeopardize programmatic accreditation where specific ratios or hours are required for program components or course acceptability in meeting major or general education requirements when transferred to a baccalaureate degree-granting institution. Use of this category should be restricted to only those instructional areas where it is clearly aligned with accepted practices higher education. The term “activity” as used in this context is not intended to limit or define the use of this term locally. Some colleges use this term—and related credit calculations—interchangeably with laboratory.

The Course Outlines of Record for many districts do not specify the outside-of-class hours, relying instead on the assumption of traditional ratios for inside- to outside-of-class hours for lecture, laboratory, or other course formats. In instances where districts only record total contact hours for the course as a whole or in each instructional category on the Course Outline of Record, the course submission must include the expected hours of student work outside of class used to determine total student learning hours for the purposes of credit calculations as described above. The tables on the following pages provide guidance for the expected outside-of-class hours for a wide range of typical credit hour calculations.

II. Fractional Unit Awards and Minimum Thresholds

Title 5 requires colleges to award units of credit in .5 unit increments at a minimum. Calculations for each increment of credit awarded by the college represent the minimum threshold for awarding that increment of credit. Students are awarded the next increment of credit only when they pass the next minimum threshold.

For example, if a course is designed to require 180 total student learning hours (36 lecture, 72 lab, and 72 outside-of-class hours), the calculation of units works as follows:

$$180 / 54 = 3.33$$

3 units of credit

In this example, the college would not award 3.5 units until the total student learning hours reached the 189-hour minimum threshold for 3.5 units. However, if a college offers credit in .25 increments, this example would yield a 3.25 unit course. Another common example is a course offered for 40 contact hours, with no hours of homework, resulting in 40 total student learning hours. In a district that awards credit in .5 increments, $40 \text{ total student learning hours} / 54 = .75$, which meets the minimum threshold for .5 units of credit, but does not pass the minimum threshold for 1 unit of credit. In this example, 40 total student learning hours (36 contact and 4 outside-of-class) would award .5 units of credit. This is similar to grading systems where, for example, a student earns a “B” for any percentage between 80 and 89. The student is only awarded an “A” when they reach the minimum threshold of 90 percent.

III. Cooperative Work Experience

Units for Cooperative Work Experience courses are calculated as follows:

- Each 75 hours of paid work equals one semester credit or 50 hours equals one quarter credit.
- Each 60 hours of non-paid work equals one semester credit or 40 hours equals one quarter credit.

IV. Clock Hour Courses / Programs

The definition of a clock hour program and standards for awarding of units of credit for these programs is defined in federal regulations 34 CFR §668.8(k)(2)(i)(A) and 668.8(l), respectively. In this regulation, a program is considered to be a clock-hour program if a program is required to measure student progress in clock hours when:

- Receiving Federal or State approval or licensure to offer the program; or
- Completing clock hours is a requirement for graduates to apply for licensure or the authorization to practice the occupation that the student is intending to pursue.

Programs that meet this definition are required to use a federal formula for determining the appropriate awarding of credit that is outlined in 34CFR §668.8(l).

V. Local Policy

Colleges are encouraged to develop local policy, regulations, or procedures specifying the accepted relationship between contact hours, outside-of-class hours, and credit for calculating credit hours to ensure consistency in awarding units of credit. The creation of a standing policy or formal calculation document helps districts fulfill the responsibility of local governing boards under Title 5 §55002 to establish the relationship between units and hours for the local curriculum development and approval process.

VI. Sample Calculations Tables

The tables on the following pages provide examples of common configurations for credit hour calculations, divided into two sections.

The first section provides tables for three most common ratios of in-class to outside-of-class work as described above for semester calculations. The table on the left provides calculations for the minimum 48 hours = 1 unit of credit. The table on the right provides calculations for the maximum baseline of 54 hours = 1 unit of credit. For colleges that use 51, 52.5 or other intermediate divisors, the same general principle and ratios apply and all calculations should fall between these two number sets. For example, a college using 51 as the divisor would show 3 units of lecture credit as 51 hours of in-class work, 102 hours outside of class for a total of 153 total student learning hours. While these tables are not prescriptive, they are accurate guides for the development of local processes or policy and provide good examples of compliant calculations that are aligned to widely accepted standards for higher education. The second section provides examples of calculation tables in the same format for quarter calculations.

Section 1: Sample Calculation Tables – Semester Calculations

Lecture	48 = 1 unit			54 = 1 unit		
	Units	Contact Hours	Homework Hours	Total Student Learning Hours	Contact Hours	Homework Hours
0.50	8	16	24	9	18	27
1.00	16	32	48	18	36	54
1.50	24	48	72	27	54	81
2.00	32	64	96	36	72	108
2.50	40	80	120	45	90	135
3.00	48	96	144	54	108	162
3.50	56	112	168	63	126	189
4.00	64	128	192	72	144	216
4.50	72	144	216	81	162	243
5.00	80	160	240	90	180	270
5.50	88	176	264	99	198	297
6.00	96	192	288	108	216	324
6.50	104	208	312	117	234	351
7.00	112	224	336	126	252	378
7.50	120	240	360	135	270	405
8.00	128	256	384	144	288	432
8.50	136	272	408	153	306	459
9.00	144	288	432	162	324	486
9.50	152	304	456	171	342	513
10.00	160	320	480	180	360	540
10.50	168	336	504	189	378	567
11.00	176	352	528	198	396	594
11.50	184	368	552	207	414	621
12.00	192	384	576	216	432	648
12.50	200	400	600	225	450	675
13.00	208	416	624	234	468	702
13.50	216	432	648	243	486	729
14.00	224	448	672	252	504	756
14.50	232	464	696	261	522	783
15.00	240	480	720	270	540	810
15.50	248	496	744	279	558	837
16.00	256	512	768	288	576	864
16.50	264	528	792	297	594	891
17.00	272	544	816	306	612	918
17.50	280	560	840	315	630	945
18.00	288	576	864	324	648	972

Activity, Lab w/Hmwrk	48 = 1 unit			54 = 1 unit		
Units	Contact Hours	Homework Hours	Total Student Learning Hours	Contact Hours	Homework Hours	Total Student Learning Hours
0.50	16	8	24	18	9	27
1.00	32	16	48	36	18	54
1.50	48	24	72	54	27	81
2.00	64	32	96	72	36	108
2.50	80	40	120	90	45	135
3.00	96	48	144	108	54	162
3.50	112	56	168	126	63	189
4.00	128	64	192	144	72	216
4.50	144	72	216	162	81	243
5.00	160	80	240	180	90	270
5.50	176	88	264	198	99	297
6.00	192	96	288	216	108	324
6.50	208	104	312	234	117	351
7.00	224	112	336	252	126	378
7.50	240	120	360	270	135	405
8.00	256	128	384	288	144	432
8.50	272	136	408	306	153	459
9.00	288	144	432	324	162	486
9.50	304	152	456	342	171	513
10.00	320	160	480	360	180	540
10.50	336	168	504	378	189	567
11.00	352	176	528	396	198	594
11.50	368	184	552	414	207	621
12.00	384	192	576	432	216	648
12.50	400	200	600	450	225	675
13.00	416	208	624	468	234	702
13.50	432	216	648	486	243	729
14.00	448	224	672	504	252	756
14.50	464	232	696	522	261	783
15.00	480	240	720	540	270	810
15.50	496	248	744	558	279	837
16.00	512	256	768	576	288	864
16.50	528	264	792	594	297	891
17.00	544	272	816	612	306	918
17.50	560	280	840	630	315	945
18.00	576	288	864	648	324	972

<i>Lab, Clinical, Activity, etc.</i>	48 = 1 unit			54 = 1 unit		
Units	Contact Hours	Homework Hours	Total Student Learning Hours	Contact Hours	Homework Hours	Total Student Learning Hours
0.50	24	0	24	27	0	27
1.00	48	0	48	54	0	54
1.50	72	0	72	81	0	81
2.00	96	0	96	108	0	108
2.50	120	0	120	135	0	135
3.00	144	0	144	162	0	162
3.50	168	0	168	189	0	189
4.00	192	0	192	216	0	216
4.50	216	0	216	243	0	243
5.00	240	0	240	270	0	270
5.50	264	0	264	297	0	297
6.00	288	0	288	324	0	324
6.50	312	0	312	351	0	351
7.00	336	0	336	378	0	378
7.50	360	0	360	405	0	405
8.00	384	0	384	432	0	432
8.50	408	0	408	459	0	459
9.00	432	0	432	486	0	486
9.50	456	0	456	513	0	513
10.00	480	0	480	540	0	540
10.50	504	0	504	567	0	567
11.00	528	0	528	594	0	594
11.50	552	0	552	621	0	621
12.00	576	0	576	648	0	648
12.50	600	0	600	675	0	675
13.00	624	0	624	702	0	702
13.50	648	0	648	729	0	729
14.00	672	0	672	756	0	756
14.50	696	0	696	783	0	783
15.00	720	0	720	810	0	810
15.50	744	0	744	837	0	837
16.00	768	0	768	864	0	864
16.50	792	0	792	891	0	891
17.00	816	0	816	918	0	918
17.50	840	0	840	945	0	945
18.00	864	0	864	972	0	972

Section 2: Sample Calculation Tables - Quarter Calculations

Lecture	33 = 1 unit		
Units	Contact Hours	Homework Hours	Total Student Learning Hours
0.5	5.5	11	16.5
1.0	11.0	22	33.0
1.5	16.5	33	49.5
2.0	22.0	44	66.0
2.5	27.5	55	82.5
3.0	33.0	66	99.0
3.5	38.5	77	115.5
4.0	44.0	88	132.0
4.5	49.5	99	148.5
5.0	55.0	110	165.0
5.5	60.5	121	181.5
6.0	66.0	132	198.0
6.5	71.5	143	214.5
7.0	77.0	154	231.0
7.5	82.5	165	247.5
8.0	88.0	176	264.0
8.5	93.5	187	280.5
9.0	99.0	198	297.0
9.5	104.5	209	313.5
10.0	110.0	220	330.0
10.5	115.5	231	346.5
11.0	121.0	242	363.0
11.5	126.5	253	379.5
12.0	132.0	264	396.0
12.5	137.5	275	412.5
13.0	143.0	286	429.0
13.5	148.5	297	445.5
14.0	154.0	308	462.0
14.5	159.5	319	478.5
15.0	165.0	330	495.0
15.5	170.5	341	511.5
16.0	176.0	352	528.0
16.5	181.5	363	544.5
17.0	187.0	374	561.0
17.5	192.5	385	577.5
18.0	198.0	396	594.0

36 = 1 unit		
Contact Hours	Homework Hours	Total Student Learning Hours
6	12	18
12	24	36
18	36	54
24	48	72
30	60	90
36	72	108
42	84	126
48	96	144
54	108	162
60	120	180
66	132	198
72	144	216
78	156	234
84	168	252
90	180	270
96	192	288
102	204	306
108	216	324
114	228	342
120	240	360
126	252	378
132	264	396
138	276	414
144	288	432
150	300	450
156	312	468
162	324	486
168	336	504
174	348	522
180	360	540
186	372	558
192	384	576
198	396	594
204	408	612
210	420	630
216	432	648

<i>Activity or Lab w/Hmwk</i>	33 = 1 unit		
Units	Contact Hours	Homework Hours	Total Student Learning Hours
0.5	11.0	5.5	16.5
1.0	22.0	11.0	33.0
1.5	33.0	16.5	49.5
2.0	44.0	22.0	66.0
2.5	55.0	27.5	82.5
3.0	66.0	33.0	99.0
3.5	77.0	38.5	115.5
4.0	88.0	44.0	132.0
4.5	99.0	49.5	148.5
5.0	110.0	55.0	165.0
5.5	121.0	60.5	181.5
6.0	132.0	66.0	198.0
6.5	143.0	71.5	214.5
7.0	154.0	77.0	231.0
7.5	165.0	82.5	247.5
8.0	176.0	88.0	264.0
8.5	187.0	93.5	280.5
9.0	198.0	99.0	297.0
9.5	209.0	104.5	313.5
10.0	220.0	110.0	330.0
10.5	231.0	115.5	346.5
11.0	242.0	121.0	363.0
11.5	253.0	126.5	379.5
12.0	264.0	132.0	396.0
12.5	275.0	137.5	412.5
13.0	286.0	143.0	429.0
13.5	297.0	148.5	445.5
14.0	308.0	154.0	462.0
14.5	319.0	159.5	478.5
15.0	330.0	165.0	495.0
15.5	341.0	170.5	511.5
16.0	352.0	176.0	528.0
16.5	363.0	181.5	544.5
17.0	374.0	187.0	561.0
17.5	385.0	192.5	577.5
18.0	396.0	198.0	594.0

36 = 1 unit		
Contact Hours	Homework Hours	Total Student Learning Hours
12	6	18
24	12	36
36	18	54
48	24	72
60	30	90
72	36	108
84	42	126
96	48	144
108	54	162
120	60	180
132	66	198
144	72	216
156	78	234
168	84	252
180	90	270
192	96	288
204	102	306
216	108	324
228	114	342
240	120	360
252	126	378
264	132	396
276	138	414
288	144	432
300	150	450
312	156	468
324	162	486
336	168	504
348	174	522
360	180	540
372	186	558
384	192	576
396	198	594
408	204	612
420	210	630
432	216	648

<i>Lab, Clinical, Activity, etc.</i>	33 = 1 unit		
Units	Contact Hours	Homework Hours	Total Student Learning Hours
0.5	16.5	0.0	16.5
1.0	33.0	0.0	33.0
1.5	49.5	0.0	49.5
2.0	66.0	0.0	66.0
2.5	82.5	0.0	82.5
3.0	99.0	0.0	99.0
3.5	115.5	0.0	115.5
4.0	132.0	0.0	132.0
4.5	148.5	0.0	148.5
5.0	165.0	0.0	165.0
5.5	181.5	0.0	181.5
6.0	198.0	0.0	198.0
6.5	214.5	0.0	214.5
7.0	231.0	0.0	231.0
7.5	247.5	0.0	247.5
8.0	264.0	0.0	264.0
8.5	280.5	0.0	280.5
9.0	297.0	0.0	297.0
9.5	313.5	0.0	313.5
10.0	330.0	0.0	330.0
10.5	346.5	0.0	346.5
11.0	363.0	0.0	363.0
11.5	379.5	0.0	379.5
12.0	396.0	0.0	396.0
12.5	412.5	0.0	412.5
13.0	429.0	0.0	429.0
13.5	445.5	0.0	445.5
14.0	462.0	0.0	462.0
14.5	478.5	0.0	478.5
15.0	495.0	0.0	495.0
15.5	511.5	0.0	511.5
16.0	528.0	0.0	528.0
16.5	544.5	0.0	544.5
17.0	561.0	0.0	561.0
17.5	577.5	0.0	577.5
18.0	594.0	0.0	594.0

36 = 1 unit		
Contact Hours	Homework Hours	Total Student Learning Hours
18	0	18
36	0	36
54	0	54
72	0	72
90	0	90
108	0	108
126	0	126
144	0	144
162	0	162
180	0	180
198	0	198
216	0	216
234	0	234
252	0	252
270	0	270
288	0	288
306	0	306
324	0	324
342	0	342
360	0	360
378	0	378
396	0	396
414	0	414
432	0	432
450	0	450
468	0	468
486	0	486
504	0	504
522	0	522
540	0	540
558	0	558
576	0	576
594	0	594
612	0	612
630	0	630
648	0	648

APPENDIX II: GLOSSARY

Advisories

A course, courses, or skill that a student should have taken or possess but that is not required prior to taking the course with the advisory.

Articulation

A process of establishing pathways for students to connect courses or programs from one learning segment to another, usually higher, segment.

Assignment

A structured set of tasks or accomplishments, usually with a defined work product to be submitted for review or grading.

Associate Degree for Transfer (ADT)

A degree that meets specific legal requirements defined in Education Code §§66745-66749 and guarantees students admission into the California State University system upon completion of the degree at a California community college.

Career Technical Education (CTE)

Formerly known as vocational or occupational education. CTE courses and programs are designed to provide students a pathway to immediate employment. Programs within CTE can vary but are coded as CTE at the Chancellor's Office.

Catalog Description

A Title 5 requirement that should contain all relevant information about a course that students, counselors, and reviewers will need for planning and review. (See Course Description)

CDCP or Enhanced Funding

A special tier of funding for noncredit courses designed to attain short term occupational goals or to prepare students for the workforce, workforce education, or college education.

Certificate of Achievement

Specific types of certificates granted to students and entered onto their transcripts for credit programs.

Certificate of Completion or Competency

Specific types of certificates granted to students in some noncredit programs.

Chancellor's Office (CO)

Formerly known as the System Office. The California Community Colleges Chancellor's Office oversees the implementation of Title 5 and Education Code and provides support and training to colleges in the California Community College system.

Course Identification Numbering System (C-ID)

A supra-numbering system developed to allow for greater ease of transfer and articulation, both among California community college campuses and between the CCCs and California State University systems.

Class Time

A legal definition of time spent in the classroom, lab, or activity area or engaged in synchronous and asynchronous activities in a distance education course.

Community Service Offering

A course offering in which the full cost of the course is paid by the students taking the course. Such courses cannot be offered for credit and are not required to go through local curriculum processes.

Contact Hours

The actual hours a student is engaged in class time activities.

Content

Detailed items of a course outline that are focused on the subject area. These items are typically organized in a taxonomy of groups and sub groups. They should be relevant to one or more of the course objectives.

Contract Education Courses

Courses offered by a college through a contract with another entity. Generally, the courses are funded by that entity and may or may not result in the awarding of college credit. Contract education courses that are offered for college credit must meet all of the requirements for credit courses.

Cooperative Work Experience Courses

Courses with variable units designed to get students into the workplace while earning college credit. Students earn units based upon hours of work.

Corequisites

A course or courses that must be taken in conjunction with the course containing the corequisite. One example is a lab course to be taken with a corequisite lecture course. In the case of a corequisite, the two courses must be taken together. If the lecture can be taken prior to or concurrently with the lab, then the lab should have both a corequisite and prerequisite on the lecture.

Course Description

Information about a course that is to be contained within the catalog description, the course outline of record, and the syllabus. (See Catalog Description)

Course Outline of Record (COR)

A document required by Title 5 that describes the elements of a course. It is also the binding contract among faculty, students, and a district defining the terms and conditions for learning and evaluating performance.

Credit Courses

Courses that districts are authorized to deliver that, when taken by a student, will cause a permanent record of credit to be made in the student's transcript of record. Course credit status can also affect financial aid and fees.

Critical Thinking

A quality and intensity of thinking that is commonly described in terms of the taxonomy of verbs developed by Benjamin Bloom in 1956. It is commonly associated with the top three levels of the taxonomy—analysis, synthesis, and evaluation. Title 5 §55002(a) and (b) require learning components of critical thinking in their respective standards for approval.

CSU GE Breadth

A pattern of courses that, if completed by a student at a California community college, allows that student to transfer to a CSU campus and fulfills lower division general education requirements.

Degree Applicable Credit Courses

A type of credit course that is transcribed in the student's record and can be counted toward a degree.

Delivery

The method by which a course is conducted.

Discipline

A subject area of courses that is usually as broad as or broader than a program area and defines the required areas of expertise of faculty teaching courses.

Distance Learning (Distance Education)

Learning that is designed to have regular face-to-face class time replaced by learning time in which the student and instructor are separated.

Educational Program

A sequence of courses that leads to a defined goal that meets the mission criteria for California community colleges as established in California Education Code.

Evaluation (Student Evaluation)

The act of determining that student learning has occurred for an individual student. Evaluation can be formative (to inform for the purposes of tailoring the learning experience) or summative (for the purpose of a final determination of the student's mastery of the subject materials).

Experimental Course

A course that is being delivered, usually for the first time, to determine a host of course factors, including student interest in the subject matter. Experimental courses must be approved through the regular curriculum process and are given temporary latitude in one or more areas where course outline of record components are not fully discernable, such as student interest.

Field Trip

A planned learning experience that requires students to relocate to a place appropriate to the learning experience being implemented. Field trips are generally expected to require travel beyond typical walking distances and can be out of state. Regulatory requirements exist for field trips. Districts will have notification forms and may have insurance or other local requirements.

General Education

A designed compilation of courses that broaden a student's thinking capacity and capabilities beyond the major's area of focus. Such coursework should inspire in students' curiosity in the wider world, self-reflection, and an increased engagement in the civic and social structures in which they live. Multiple general education pathways exist, including CSU GE Breadth, IGETC, and local patterns. Local patterns must fulfill the requirements delineated in Title 5.

Homework

Coursework designed into the course to be accomplished outside of class time.

Independent Study Course

A course packaging option that is designed to offer one-on-one instruction with one or a few students to achieve specific goals beyond the current scope of existing courses. Such a course should be fairly specific, can collect apportionment, and has clear rules about faculty and student activities and interaction required.

Intensity

A quality or characteristic that defines the level of thinking being sought by the curriculum. With respect to the Standards for Approval in Title 5 §55002, intensity also refers to the student's capacity to study independently.

Intersegmental General Education Transfer Curriculum (IGETC)

A pattern of courses that, if completed by a student at a California community college, allows that student to transfer to a CSU or UC campus and fulfills lower division general education requirements.

Lower Division

Generally understood as the first two years of a four-year degree. Community college degree-applicable courses are generally considered lower division courses.

Matriculation

The intentional processes or pathways by which students move from course to course or program to program or service within one college.

Methods of Instruction

An element in the course outline of record that describes the techniques that may be used to cause learning. These techniques may include lecture, group discussion, and synchronous or asynchronous interaction.

Mission

The mission for California's community colleges is defined in Education Code. The current mission focuses on transfer education, career technical education, and basic skills education.

Modality

The primary instructional delivery method that describes the general relationship that exists between students and their learning environment, which includes the faculty. Several modality examples are face-to-face in a lecture, lab, or activity, field trips, work experience, internships, or other real time immersion experiences, at a distance using real time interconnectivity such as the Internet or telephones, or at a distance using one way interconnectivity such as recorded television, audio, or correspondence. Regulations differentiate the modalities into two groups—in-person and at-a-distance—with respect to the instructor and student, so the common usage of the term is to differentiate between these two groups.

Noncredit

Courses that districts are authorized to deliver that when taken by a student do not result in a permanent record of credit to be made in the student's transcript of record unless local policy allows for letter grades or satisfactory progress indicators. Noncredit courses are delimited in regulation and can only be offered in specified areas, some of which overlap with credit instruction.

Non-degree Applicable Credit Courses

A type of credit course that is transcribed in the student's record but does not count toward a degree. These courses commonly address pre-collegiate level basic skills and workforce preparation.

Not-for-Credit Courses

Another term for both “community service offerings” and for “contract education courses” that do not earn credit. These courses are often confused with noncredit courses, but the term “noncredit” is specifically reserved for use as defined in Title 5 §55002(c).

Objectives

The key elements that must be taught every time a course is delivered.

Open-entry/Open-exit Courses

Courses that allow for students to enroll in or drop a course at any time without penalty. These courses are positive attendance courses.

Open Educational Resources (OER)

Materials that are available to students at little or no cost for anyone to use.

Prerequisites

Coursework or skills that have been demonstrated to be necessary for most students to be successful in a course.

Program Review

A process of review, assessment, analysis, and planning at the program level that, when integrated effectively into institutional decision-making, drives most institutional decisions.

Scope

In Title 5 under Standards for Approval, “scope,” along with “intensity,” describes the breadth of domain a college level course should cover.

Special Topics Course

A course that is designed to change an auxiliary focus each time it is offered.

Student Learning Outcomes (SLOs)

Student learning outcomes (SLOs) are the specific observable or measurable results that are expected subsequent to a learning experience. These outcomes may involve knowledge (cognitive), skills (behavioral), or attitudes (affective) that provide evidence that learning has occurred as a result of a specified course, program activity, or process. An SLO refers to an overarching outcome for a course, program, degree or certificate, or student services area such as the library. SLOs describe a student's ability to synthesize many discreet skills using higher level thinking skills and to produce something that asks them to apply what they have learned. SLOs usually encompass a gathering together of smaller discrete objectives through analysis, evaluation, and synthesis into more sophisticated skills and abilities.

Study (Independently)

This concept implies that most students would not be able to master course material without additional effort outside of normal course activities, whether inside or outside of class time. It also implies that the student is capable of self-directed study and research, meaning the student must be able to operate at some higher cognitive level.

Syllabus

A document that faculty distribute to students at the beginning of a course that includes the information necessary for the students to develop an understanding of the requirements needed for them to be successful in the course. Syllabi usually also include required textbooks and a schedule of assignments. Such a document often contains many elements from the course outline of record, the college catalog, references to student codes of conduct, student learning outcomes, and course objectives.

Textbooks/Instructional Materials

Materials used in a course for instructional purposes. A specific textbook can be a factor in the ability for a course to articulate to other colleges or to receive C-ID designation. Materials other than textbooks are typically known as "other instructional materials."

Title 5 Regulations

A part of the California Code of Regulations that specifically covers K-12, the California Community Colleges, and the CSU segments.

Transferability

Refers to a whether a course is accepted for credit toward an educational goal at a receiving institution.

Units

A unit is a credit per hour scale. California community colleges use two scales, the quarter and the semester, where the former is $\frac{2}{3}$ of the latter. Forty-eight semester hours generally equals one semester unit of credit being transcribed in a student's record. Thirty-three quarter hours generally equals one quarter unit of credit. Since noncredit does not record any credit in a student's record, units do not apply to noncredit courses.

Upper Division

Generally advanced undergraduate coursework that is taken in the last two years of a four-year bachelor's degree.

Variable Unit Courses

A course with the units earned by the student based upon the student's capacity to complete time on task. Variable units are commonly used for work experience courses and independent study courses.

APPENDIX III: COURSE OUTLINE OF RECORD TITLE 5 REQUIREMENTS

Title 5 §55002 does much to establish many elements of a course outline of record, but it does not paint the complete picture of what the COR must accommodate. The following list is meant to provide a broader snapshot of these additional factors.

Alternative Course Formats

Cooperative Work Experience Education	§55250-§55257
Independent Study	§55230-§55240
Open Entry/Open Exit.	§58164
Special Topics/Activity Courses.	§55041, §58161
Supplemental Instruction	§58168-§58172
Certificates of Achievement	§55070
Degrees/Area of Emphasis	§55063
Distance Education.	§55200-§55210
Excursions and Field Trips	§55220, §58166
Grading Policies.	§55021-§55023
Noncredit Programs	§55150-§55155
Enhanced funding	§55151-§55154
Requisites	§55003

APPENDIX IV: RELEVANT PUBLICATION RESOURCES

ACCREDITATION

Accrediting Commission for Community and Junior Colleges. (2014). *Accreditation standards*. Retrieved from <http://www.accjc.org/>

Academic Senate for California Community Colleges. (2009). *SLO terminology glossary – A resource for local senates*. Retrieved from http://www.asccc.org/sites/default/files/publications/SLO-Glossary-2010_0.pdf.

Academic Senate for California Community Colleges. (2015). *Effective practices in accreditation: A guide for faculty*. Retrieved from http://www.asccc.org/sites/default/files/Accreditation_paper.pdf.

ARTICULATION

Intersegmental Committee of the Academic Senates. (2006). *A transfer discussion*. Retrieved from <http://icas-ca.org/Websites/icasca/Images/ICASTransferDocument.pdf>

California Intersegmental Articulation Council. *California articulation policies and procedures handbook*. Retrieved from http://ciac.csusb.edu/documents/CIAC_Handbook_Spring_2013.pdf.

CHANCELLOR'S OFFICE GUIDELINES

Chancellor' Office. (2001). *Student attendance accounting manual*. Retrieved from http://extranet.cccco.edu/Divisions/FinanceFacilities/FiscalServicesUnit/StudentAttendanceAccountingManual.aspx#Attendance_Accounting/_FTES.

Chancellor' Office. (2011). *Distance education guidelines*. Retrieved from <http://extranet.cccco.edu/Divisions/AcademicAffairs/EducationalProgramsandProfessionalDevelopment/DistanceEducation.aspx>

Chancellor' Office. (2012). *Budget and accounting manual*. Retrieved from <http://extranet.cccco.edu/Divisions/FinanceFacilities/FiscalStandardsandAccountabilityUnit/FiscalStandards/BudgetandAccountingManual.aspx>.

Chancellor' Office. (2012). *Guidelines for title 5 §55003: Policies for prerequisites, corequisites and advisories on recommended preparation*. Retrieved from http://extranet.cccco.edu/Portals/1/AA/Prerequisites/Prerequisites_Guidelines_55003%20Final.pdf

Chancellor' Office. (2013). *California community colleges taxonomy of programs*. Retrieved from http://extranet.cccco.edu/Portals/1/AA/Credit/2013Files/TOPmanual6_2009_09corrected_12.5.13.pdf.

Chancellor' Office. (2013). *Guidelines on course repetition*. Retrieved from <http://extranet.cccco.edu/Portals/1/AA/Credit/2013Files/CreditCourseRepetitionGuidelinesFinal.pdf>

Chancellor' Office. (2013). *Program and course approval handbook*. Retrieved from http://extranet.cccco.edu/Portals/1/AA/ProgramCourseApproval/Handbook_5thEd_BOGapproved.pdf

CURRICULUM AND CURRICULUM GUIDELINES

Academic Senate for California Community Colleges. (1988). *Critical thinking skills in the college curriculum*. Retrieved from http://www.asccc.org/sites/default/files/publications/CriticalThinkingSkills_o.pdf.

Academic Senate for California Community Colleges. (1998). *Information competency in the California community colleges*, Retrieved from http://www.asccc.org/sites/default/files/publications/InfoComp_o.pdf.

Academic Senate for California Community Colleges. (2002). *Information Competency: Challenges and Strategies for Development*. Retrieved from http://www.asccc.org/sites/default/files/publications/InfoCompetency_o.pdf.

Academic Senate for California Community Colleges. (2016). *Ensuring effective curriculum approval processes: A guide for local senates*. Retrieved from http://www.asccc.org/sites/default/files/Effective%20Curriculum%20Approval%20Process_o.pdf.

MISCELLANEOUS

Academic Senate for California Community Colleges. (2007). *Promoting and sustaining an institutional climate of academic integrity*. Retrieved from <http://www.asccc.org/papers/promoting-and-sustaining-institutional-climate-academic-integrity>.

Academic Senate for California Community Colleges. (2009). *Program review: Setting a standard*. Retrieved from http://www.asccc.org/sites/default/files/publications/Program-review-spring09_o.pdf.

Academic Senate for California Community Colleges. (2012). *Setting course enrollment maximums: Process, roles, and principles*. Retrieved from <http://www.asccc.org/papers/setting-course-enrollment-maximums-process-roles-and-principles>.

Academic Senate for California Community Colleges. (2012). *Standards of practice for California community college library faculty and programs*. Retrieved from <http://www.asccc.org/papers/standards-practice-california-community-college-library-faculty-and-programs>.

Chancellor's Office. (2014). *Minimum qualifications for faculty and administrators in the California community colleges*. Retrieved from <http://californiacommunitycolleges.cccco.edu/Portals/0/Reports/2016-Minimum-Qualifications-Report-ADA.pdf>.

PREREQUISITES, COREQUISITES, AND ADVISORIES

Academic Senate for California Community Colleges. (1997). *Good practices for the implementation of prerequisites*. Retrieved from <http://www.asccc.org/papers/good-practices-implementation-prerequisites>.

Academic Senate for California Community Colleges. (2011). *Implementing content review for communication and computation prerequisites*. Retrieved from <http://www.asccc.org/papers/implementing-content-review-communication-and-computation-prerequisites>.

Academic Senate for California Community Colleges. (2010). *Student success: The case for establishing prerequisites through content review*. Retrieved from <http://www.asccc.org/papers/student-success-case-establishing-prerequisites-through-content-review>.

APPENDIX V: RESOURCES LINKS

Academic Senate for California Community Colleges (ASCCC) www.asccc.org

Accrediting Commission for Community and Junior Colleges (ACCJC) <http://www.accjc.org/>

California Department of Education (K-12) <http://www.cde.ca.gov/>

California Community Colleges Chancellor's Office (CCCCO) <http://www.cccco.edu>

California State University (CSU) <http://www.calstate.edu/>

Course Identification Numbering System (C-ID) <https://c-id.net/>

Intersegmental Committee of the Academic Senates (ICAS) <http://www.asccc.org/icas.html>

United States Department of Education (USDE) <http://www.ed.gov/index.jhtml>

University of California (UC) <http://www.universityofcalifornia.edu>

Western Association of Schools and Colleges (WASC) <http://www.wascweb.org/>