

Hours to Units

An advanced user's guide

I. Overview of Academic Credit

- Time-based Credit
- Competency-based Credit

Time-based Academic Credit: The “Carnegie” or Standard Unit:

Colloquial terms for the generally accepted standards related to academic credit awarded for study based on hours of student work. Generally, 3 hours of student work per week, for 16-18 week semester = 1 semester unit of credit.

- Broken up into generally accepted ratio of 1 hour in-class / 2 hours out-of-class for lecture, or 3 hours of in-class work for laboratory.
- Is a misnomer! The “Carnegie” name became associated with the “Standard Unit”, but the Foundation did not originate the concept of equating hours with numeric units.
- More accurately referred to as a “Standard Unit.”

Competency-based Credit

Standards for awarding units of credit to students through successful completion of assessments that “prove” mastery of competencies, outcomes, or tasks, often at their own pace without formal course material. Alternately, credit granted for certain types of work completed in the military.

- Credit by Examination
- Military Service Credit

II. Basic Principles

Total Student Learning Hours vs. Catalog Hours

Catalog Hours:

- Term used to describe student hours spent under the direct supervision of an instructor in lecture, lab, or other.
- Hours as listed in the college catalog.
- Basis for faculty load and scheduling calculations.

Student Learning Hours

- Total of all in-class and out-of-class time a student spends on learning. Includes lecture, lab, other, and homework.
- Hours as listed on the Course Outline of Record.
- Basis for Unit calculations

Term Length

Term length varies district-to-district, and often program-to-program within districts. Most CCCs use a 16-18 week calendar. To ensure compliance with FTES reporting standards, the CO recommends that districts use an 18 week term to calculate hour-to-unit ratios on Course Outlines of Record.

- Standard Unit calculation of 3 hours per week over the entire term = 1 unit of credit.
- 18 weeks x 3 hours = 54 hours.

III. Standards and Regulations

California Regulations

Title 5 of the California Code of Regulations:

- §55002.5

The Program and Course Approval Handbook (PCH)

- Incorporated into Title 5 regulations by reference. (§55000.5)
- Fifth ed., pages 99-103

ACCJC and USDE

USDE 34 CFR 600.2

Credit hour: Except as provided in 34 CFR 668.8(k) and (l), a credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than—

- (1) One hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately fifteen weeks for one semester or trimester hour of credit, or ten to twelve weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time; or
- (2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

Bottom Line: Colleges must develop local policy that meets Federal minimum and the guidelines in the PCAH.

Full “Dear Colleague” Letter: <http://ifap.ed.gov/dpcletters/GEN1106.html>

IV. Credit Calculations

To Calculate Units

(Total Lec Hrs + Total Lab Hrs + Total Hmwrk Hrs)

54*

=

(Round answer down to nearest .5)

**54 is used for this example based on the recommendation from the Chancellor's Office that local districts use an 18 week semester as the basis for calculating hour to unit ratios on Course Outlines of Record. A minimum of 48 hours on the semester system or 33 on the quarter system is required in the PCAH.*

Calculation Example:

- $(36 \text{ Lec} + 72 \text{ Lab} + 72 \text{ Hmwrk}) = 180$ total student hours
- $180 / 54 = 3.33$
- 3 units

**54 is used for this example based on the recommendation from the Chancellor's Office that local districts use an 18 week semester as the basis for calculating hour to unit ratios on Course Outlines of Record. For 18 weeks, 54=1 unit*

Calculating Units: Lecture

Definition: typically defined as instruction to the entire class by the instructor, but may include directed small group work, student presentations, critiques, and other teaching methodologies.

Basics for 1-unit of Lecture Credit:

- 18 hours in-class
 - 36 hours homework.
-
- 54 total student learning hours.

Calculating Units: Lab

Instructor-supervised time-on-task in a specialized learning facility / environment such as a biology lab, art studio, or athletic facility. Characterized by one-on-one interaction between instructor and student.

Basics for 1-unit of Lab Credit:

- 54 hours in-class
 - No homework
-
- 54 total student learning hours.

Calculating Units: Lecture/Lab

Courses that intermix lecture and instructor-supervised time on task in a specialized learning facility / environment such as an art studio, computer lab, welding shop, or athletic facility. Students typically meet for both components within same scheduled class period and classroom or facility.

Sample calculation for a 3-unit of Lecture / Lab Course*:

- 36 hours in-class lecture
- 72 hours in-class lab
- 54 hours homework

- 162 total student learning hours.

**Calculating the correct hour to unit ratios for these courses is challenging as the ratio between the two instructional methods varies by discipline. The key is to establish consistent, objective standards.*

Calculating Units: Other Instructional Formats

While the majority of courses fall under lecture or lab calculations, some districts use other instructional formats that are locally defined and use locally-determined calculations for units. These are typically variations on labs or labs with some lecture or homework hours. Examples include: Clinicals, Integrated Lab, etc.

Basics for 1-unit of Credit:

- Regardless of the local format and policy, the same basic calculation applies: 48 - 54 hours of total student learning hours = 1 unit of credit.
- Example: Integrated lab with 36 hours of in-class and 18 hours of homework for 1 unit.

V. Scenarios

Scenario 1

ZENENG: 101 – Introduction to Vertical Zen Engineering

Professional accrediting standards require 880 hours of classroom time over 20 weeks, but are not specific on how those hours are divided between lecture, lab, or other categories. This is a CTE course.

- A. How would the faculty and the curriculum committee determine the appropriate breakdown of hours between lecture, lab, or other instructional formats?
- B. What elements on the COR would be reviewed to determine if the hours had been assigned to the appropriate instructional formats?
- C. How many units of credit?
- D. How many hours per week in each category?
- E. What potential conflicts and pressure could enter in to this course approval?
- F. What is the role of local policy and practice in this case?

Scenario 1: Answers

- A. Local policy, process, and standards based on guidelines in T5 and PCAH. COR elements can provide direction.
- B. Homework, evaluation, assignments, content, outcomes, objectives, content.
- C. Depends! Pure Lab= 16 units, Pure Lecture=49 units, Lec/Lab = Variable
- D. Faculty Load, Cost of Enrollment, External Acc.
- E. To provide guidelines that answer this question from inception and delineate between prescriptive and permissive aspects of regulation re: unit calculation.

Scenario 1: Considerations

- Local policy / process should provide objective, standard means for calculation.
- Manage External Pressures w/ Clear Standards
- Lecture, lab, and other instructional categories not firmly defined in regulation, but are guided by widely used definitions in higher ed.
- Development of local standards for Lec / Lab, Studio, Clinical, etc. within accepted practices and regulation.

Scenario 2

ARTS 200: Introduction to Paintmaking

This course is lower division major preparation in the studio arts. Currently articulated to most CSUs and UCs as meeting major requirements for transfer. The Arts faculty propose a revision to the course increasing the total catalog hours from 90 to 108, but propose keeping it a 3 unit course. The additional hours are being added to the lab component of the course. The faculty provide a rationale for this change indicating that this course requires additional supervised laboratory instruction for the specialized equipment that is not generally available to the students outside of the arts facility.

Scenario 2, cont.

- A. Is this permissible?
- B. What regulations would guide the decision of the committee in approving this revision?
- C. How many total student learning hours?
- D. How many hours of Lecture?
- E. How many hours of Lab?
- F. How many hours of homework?
- G. What information or evidence could be used by the committee in considering this revision?
- H. What is the role of local policy in this instance?
- I. What about

Scenario 2: Answers

- A. Possibly, under regulations, depending on the total number of student learning hours. Must conform to local policy / standards.
- B. PCAH and Title 5 §55002.5
- C. May vary, but: 36 hours of lecture = 2 units
- D. May vary, but: 72 hour of lab can = .5 units*
- E. May vary, but 54 – 72 could be used.
- F. COR elements related to rationale about specialized equipment and facilities. Adequate lab assignments, content, objectives.
- G. Local policy MAY allow this, but should be specified in policy and standard in application across curriculum. Asking for conflict if applied inconsistently. Administrative concerns.

*See discussion of hour ranges.

Scenario 2: Considerations

- Hour ranges: base calculations provide minimum hours.
- Range of hours between .5 increments.*
- Allowance for non-standard configurations in regulations, i.e. more in-class, reduced homework; lab w/ homework; etc.
- Discipline-specific considerations, standards.
- Articulation and Transferability.
- Other Pressures: Teaching Load.
- Administrative concerns re: WSCH, Load, Productivity, Scheduling.

*Or .25 increments, when used.

*Hour / Unit Ranges

As shown in the last example, hours used to determine units are actually a range between minimum and maximum hours per increment of credit. To use the last course as an example:

3-unit Lecture / Lab Course:

- 36 hours of lecture = 2 units
- 72 hours of lab = 1 unit

Permissible by regulation, but depends on local policy and standards. 1 unit of lab credit, in this instance = 54 – 80 hours (1 – 1.5 units)

General Principle: Round down answer from basic hour-to-unit conversion formula to nearest unit increment.

Concerns: Productivity, Load, FTES, WSCH, etc.

Scenario 3

MATH 200 –Elementary Statistics

This course is transfer-level math for non-majors and required for most degrees in the catalog. Math faculty submit a proposal increasing it from 3 to 5 units to match increased content and the addition of hybrid learning.

- A. What issues should be reviewed by faculty and committee?
- B. What potential impact would this have on other programs?
- C. What resources or guidelines could provide external justification for a decision for or against?
- D. What is the appropriate role of the curriculum committee in this issue?
- E. Should this be allowed?

Scenario 3: Answers

- A. Impact on General Education patterns, CTE degree requirements, ADT requirements, articulation, transfer standards, etc.
- B. Increased units could prevent adoption of ADT degrees by pushing over 60 unit maximum or invalidate existing degrees.
- C. ASSIST reports, CSU/UC catalogs, C-ID, ADT, General Education course lists, Articulation analysis.
- D. Critical Role: not a rubber stamp for discipline proposals.
- E. Magic 8-Ball Says: “Reply hazy try again”

Scenario 3: Considerations

- Local discipline faculty authority / autonomy vs. broader curricular concerns.
- General Education review should consider unit changes.
- ADT and other Degree requirements need to be reviewed during course proposal process to ascertain full impact of curricular decisions on increased or decreased units.
- C-ID Standards are not prescriptive, but can provide some sense of common practices and minimum unit values for courses.

VI. Conclusion

Tips for Chairs

- Develop local policy and processes and record them in your Curriculum Handbook.
- Understand the flexibility within the regulations, but develop local standards that provide objective guidelines for development and decision making.
- Consider development of unit / hour conversion tables for your handbook.
- Train your committee to calculate units in their sleep.
- Let the Union handle faculty load and other workplace issues related to instructional hours: curriculum should not be used to solve contractual problems.
- Work closely with administration on issues around units and instructional hours, but remember Senate primacy in curriculum.

Questions?

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