

Relationship of Hours to Units

Curriculum Committee

Los Medanos College uses the basic structure of the Carnegie Unit to determine the relationship of hours of student work to academic credits. As a California Community College, LMC is further bound by the regulations found in Title 5 and in the Program and Course Approval Handbook, a text maintained by the Chancellor's Office and incorporated by reference into state regulations.

I. Overview and Definitions

All calculations of units and hours are based on the total number of hours a student spends inside and outside of the classroom, expressed in distinct ratios for specific categories of courses. In this framework, 54 hours of student work, inclusive of work inside and outside of the classroom, equals 1 unit of academic credit. Title 5 requires that college award units in .5 increments when the total number of hours reaches 27 --- 53 total student hours and for 2 units to be awarded once student hours reach 108.

The following definitions are derived from multiple sources, including Title 5, PCAH, SAAM, and LMC regulations and handbooks.

- Catalog Hours: The total hours a student will spend in the classroom as recorded on the Course Outline of Record (COR) and recorded in the College Catalog. This is distinguished from Scheduling or Contact Hours.
- Homework Hours: The total average hours an average student will spend on out-of-classroom assignments.
- Student Hours: Total time a student will spend on course work, inclusive of all in-class and homework hours.
- Weekly Hours: Catalog hours divided by the term length.
- Scheduling Hours: The number of hours a given section of a course meets in a given term.
- Contact Hours: Counting of in-class hours used to calculate FTES for apportionment. Includes separate calculations for Weekly, Daily, and Positive Attendance Contact Hours.
- Lecture: (Ratio of In-class to Homework Hours is 1:2) An instructional method that primarily utilizes full-class or group content delivery. May include some small group work, presentations, and discussion.
- Lab: (Ratio of In-class to Homework Hours is 3:0.) An instructional method where students are primarily working independently or in groups to develop or practice skills in a laboratory, workshop, studio, court, field, or other specialized instructional space. Instructor supervises and directs activity at the student or small group level for most of the class period.
- Activity: (Ratio of In-class to Homework Hours is 2:1) An instructional method where the instructor switches between lecture and lab instruction in the same class period and classroom.

II. Basic Calculations

For one unit of credit, the following general calculations apply:

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

As per District Curriculum and Instruction Policy, 4001, it is important to note that in this and the following tables the hour values associated with each unit value represent a *minimum* number of hours for each unit of credit. In practice, there is a range of hours between the minimum values for each .5 increment but as of the publishing of the 6th and 7th editions of the Chancellor’s Office PCAH (Program and Course Approval Handbook) we must round down to the nearest .5 unit or the nearest fractional unit award used by the District. Our District has elected to always round down to the nearest .5 unit increment. We are not allowed under any circumstance to “round up”.

For example: Suppose a course has 54 lecture hours and 36 lab hours listed in the COOR. Using the math represented in the tables below, this course would equate to $(54*3 + 36)/54 = (198)/54 = 3.67$ units. Under no circumstances could this course be listed as 4 units (no rounding up), and thus this course would need to be listed as 3.5 units.

Additionally, in the UF contract, Article 7.2.4, the mode of instruction previously listed as “activity” is now categorized as Laboratory Type 3 and the use of the word “activity” in the course outline of record should be reserved only for courses that meet the curricular (not formally contractual) definition of “activity”. Practically, this means that most courses (including those related to physical education) that require 0 “homework” hours, and were formally categorized as “activity” for UF contract purposes should be classified as “laboratory” hours instead in the course outline of record and the catalog. The unit value for these courses will be computed appropriately using the laboratory hours computations and the faculty will be paid for these hours as defined per United Faculty Contract 7.2.3.3 as Laboratory Type 3 hours.

III. Calculations for Lecture

Total Units	Curriculum Calculations			Term Calculations			
	Total Catalog Hours	Total Homework Hours	Total Student Hours	Weekly Hours (18 Weeks)	Weekly Hours (9 Weeks)	Weekly Hours (8 Weeks)	Weekly Hours (6 Weeks)
0.5	9	18	27	0.5	1	1.13	1.5
1.0	18	36	54	1.0	2	2.25	3.0
1.5	27	54	81	1.5	3	3.38	4.5
2.0	36	72	108	2.0	4	4.50	6.0
2.5	45	90	135	2.5	5	5.63	7.5
3.0	54	108	162	3.0	6	6.75	9.0
3.5	63	126	189	3.5	7	7.88	10.5
4.0	72	144	216	4.0	8	9.00	12.0
4.5	81	162	243	4.5	9	10.13	13.5
5.0	90	180	270	5.0	10	11.25	15.0
5.5	99	198	297	5.5	11	12.38	16.5
6.0	108	216	324	6.0	12	13.50	18.0
6.5	117	234	351	6.5	13	14.63	19.5
7.0	126	252	378	7.0	14	15.75	21.0
7.5	135	270	405	7.5	15	16.88	22.5
8.0	144	288	432	8.0	16	18.00	24.0
8.5	153	306	459	8.5	17	19.13	25.5
9.0	162	324	486	9.0	18	20.25	27.0
9.5	171	342	513	9.5	19	21.38	28.5
10.0	180	360	540	10.0	20	22.50	30.0

IV. Calculations for Lab

Total Units	Curriculum Calculations			Scheduling Calculations			
	Total Catalog Hours	Total Homework Hours	Total Student Hours	Weekly Hours (18 Weeks)	Weekly Hours (9 Weeks)	Weekly Hours (8 Weeks)	Weekly Hours (6 Weeks)
0.5	27	0	27	1.5	3	3.38	4.5
1.0	54	0	54	3.0	6	6.75	9.0
1.5	81	0	81	4.5	9	10.13	13.5
2.0	108	0	108	6.0	12	13.50	18.0
2.5	135	0	135	7.5	15	16.88	22.5
3.0	162	0	162	9.0	18	20.25	27.0
3.5	189	0	189	10.5	21	23.63	31.5
4.0	216	0	216	12.0	24	27.00	36.0
4.5	243	0	243	13.5	27	30.38	40.5
5.0	270	0	270	15.0	30	33.75	45.0
5.5	297	0	297	16.5	33	37.13	49.5
6.0	324	0	324	18.0	36	40.50	54.0
6.5	351	0	351	19.5	39	43.88	58.5
7.0	378	0	378	21.0	42	47.25	63.0
7.5	405	0	405	22.5	45	50.63	67.5
8.0	432	0	432	24.0	48	54.00	72.0
8.5	459	0	459	25.5	51	57.38	76.5
9.0	486	0	486	27.0	54	60.75	81.0
9.5	513	0	513	28.5	57	64.13	85.5
10.0	540	0	540	30.0	60	67.50	90.0

V. Calculations for Activity

Total Units	Curriculum Calculations			Scheduling Calculations			
	Total Catalog Hours	Total Homework Hours	Total Student Hours	Weekly Hours (18 Weeks)	Weekly Hours (9 Weeks)	Weekly Hours (8 Weeks)	Weekly Hours (6 Weeks)
0.5	18	9	27	1.0	2	2.25	3.0
1.0	36	18	54	2.0	4	4.50	6.0
1.5	54	27	81	3.0	6	6.75	9.0
2.0	72	36	108	4.0	8	9.00	12.0
2.5	90	45	135	5.0	10	11.25	15.0
3.0	108	54	162	6.0	12	13.50	18.0
3.5	126	63	189	7.0	14	15.75	21.0
4.0	144	72	216	8.0	16	18.00	24.0
4.5	162	81	243	9.0	18	20.25	27.0
5.0	180	90	270	10.0	20	22.50	30.0
5.5	198	99	297	11.0	22	24.75	33.0
6.0	216	108	324	12.0	24	27.00	36.0
6.5	234	117	351	13.0	26	29.25	39.0
7.0	252	126	378	14.0	28	31.50	42.0
7.5	270	135	405	15.0	30	33.75	45.0
8.0	288	144	432	16.0	32	36.00	48.0
8.5	306	153	459	17.0	34	38.25	51.0
9.0	324	162	486	18.0	36	40.50	54.0
9.5	342	171	513	19.0	38	42.75	57.0
10.0	360	180	540	20.0	40	45.00	60.0

VI. Lecture / Lab Courses

Lecture / Lab is the fourth basic course category, combining both lecture and lab formats in a single COR. Calculating the correct hour to unit ratios for these courses is challenging as the ratio between the two instructional methods varies by discipline and by course. The table below provides a couple of examples based on typical LMC courses.

Total Units	Curriculum Calculations				Scheduling Calculations			
	Total Lecture Hours	Total Lab Hours	Total Homework Hours	Total Student Hours	Weekly Hours (18 Weeks)	Weekly Hours (9 Weeks)	Weekly Hours (8 Weeks)	Weekly Hours (6 Weeks)
1.0	18	18	36	72	2.0	4.0	4.5	6.0
2.0	18	54	36	108	4.0	8.0	9.0	12.0
3.0	36	72	72	180	6.0	12.0	13.5	18.0
4.0	54	54	108	216	6.0	12.0	13.5	18.0
5.0	54	108	108	270	9.0	18.0	20.3	27.0

Note that in the example shown above for 3 units, that the Total Student Hours calculation is above the 162 minimum hours for 3 units of credit, but below the 189 hour threshold where the college would need to offer the course for 3.5 units of credit.

Again, Lecture / Lab combinations vary from discipline to discipline and between courses within disciplines. The table above provides examples, but is neither exhaustive nor prescriptive of how courses must be structured and hours / units calculated. The easiest way to determine the appropriate units is to divide the Total Student Hours (TSH) by 54. For example, if a course requires a 195 total student hours—inclusive of lecture, lab, and homework hours—then the following calculation applies:

- $195 \text{ TSH} / 54 = 3.61$
- Round down to nearest .5
- **3.5 units of credit**

VII. Authority and References

The recommendations in this document are consistent with and derived from current regulations and practices related to Unit / Hour calculations. The following specific regulations, documents, and handbooks provide the legal framework for the above calculations and recommendations:

- Title 5 of the California Code of Regulations §55002.5
- Program and Course Approval Handbook (PCAH – 7th Edition): pp. 54-61. This document is maintained by the Chancellor’s Office and is incorporated by reference into Regulations by Title 5 §55000.5.
- California Community Colleges Chancellor’s Office - Student Attendance and Accounting Manual (SAAM – 2020)
- California Community Colleges Chancellor’s Office – Hours and Units Calculations – Effective 10.05.2015
- United Faculty Contract 2019 – 2022, Article 7.2.4 – Physical Education Course Assignment
- United Faculty Contract 2019 – 2022, Article 7.2.3.3 – Laboratory Three Type Course Assignment
- 4CD - Curriculum and Instruction Policy 4001

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