

Detailed Explanation of Full-time Equivalent Faculty (FTEF)

(prepared by Institutional Effectiveness and Analytics, June 9, 2014)

According to the Chancellor offices (CSUCO) Data Element Dictionary (DED), the instructional FTEF must be computed at the course level for each course segment.

$$\text{Segment FTEF} = \frac{(\text{Total IFF} * \text{Adjusted WTU} * \text{TTF})}{\text{Total Adjusted WTU}}$$

1. **Instructional Faculty Fraction (IFF)** and Instructional FTEF are used interchangeably. It applies to instructional faculty who have a) teaching assignments and b) direct assigned time.

- For tenured/tenure track faculty: 1 Instructional FTEF = 12 WTUs
- For temporary faculty: 1 Instructional FTEF = 15 WTUs

In assigning work to faculty members, the CSU uses a system of “weighted teaching units”, or WTU. The intent of the weighting system is to account for the time a faculty member would be expected to spend in the classroom as well as the time spent on course preparation, holding office hours for students, grading, and so forth.

The normal workload of a tenured/tenure track faculty member consists of two components:

- 12 weighted teaching units (WTU) of direct instructional assignments, including classroom and laboratory instruction and instructional supervision (such as student thesis, project or intern supervision); and
- 3 WTU (known as service credits) equivalencies of indirect instructional activity such as student advisement, curriculum development and improvements, and committee assignments.

Thus Weighted Teaching Units are a measure of the weekly rate of faculty effort.

2. **Adjusted Weighted Teaching Units (AWTU)** is the Weighted Teaching Units workload as adjusted by Section Fraction based on a mode of instruction (CS Number).

- a) For **CS numbers between 01 and 21 (lecture, seminar, activity and lab courses)**, the AWTU is equal to the course credit unit multiplied by the K- factor.

$$\text{Adjusted WTU} = \text{Course Credit Unit} * \text{K-Factor}$$

Example: AWTU for an activity course with CS number 14 and course credit of 3 would be 3.9 (3 * 1.3)

CS Number	K factor
01 thru 04 (lecture)	1.000
05 thru 06 (seminar)	1.000
07 thru 14 (activity)	1.300
15 (lab)	1.500
16, 17 (lab)	2.000
18 (activity)	6.000
19 thru 21 (activity)	3.000

- b) For **CS numbers between 23 and 48 (supervision courses)**, the AWTU is equal to the total enrollment of the course section multiplied by the Adjusting-factor (see chart below).

$$\text{Adjusted WTU} = \text{Total Enrollment} * \text{Adjusting-Factor}$$

Example: AWTU for a supervision course with CS number 25 and total enrollment of 8 would be 4 (8 * 0.5)

CS Number	Adjusting Factor
23	1.000
24	0.667
25	0.500
36	0.333
48	0.250

- c) For courses with **CS Numbers 77 and 78**, the AWTU is always zero

3. **Team Teaching Fraction (TTF)** is the percentage of the instructional workload for a given course that each faculty received for a team teaching assignment. The sum of such fractions within one team-taught course must total 1.0. Example: One team-taught course was assigned to two instructors. Both are tenure-track faculty with equal workload assignment (50% TTF). Note: For majority of faculty who taught regular courses, their TTF is 1.0.

Examples

Case #1: A tenured/tenure track faculty who taught 5 courses (without direct assigned time).

Course	CS Number	Course Unit	TTF	AWTU	Segment FTEF
PHYS 0002A 15	16	1	1	2	0.167
PHYS 0002A 17	16	1	1	2	0.167
PHYS 0002A 19	16	1	1	2	0.167
PHYS 0051 05	1	3	1	3	0.250
PHYS 0051 08	1	3	1	3	0.250
Total =				12	1.000

$$\begin{aligned} \text{Total IFF} &= (\text{Total AWTU}) / 12 \\ &= 12 / 12 = 1.0 \end{aligned}$$

$$\text{Segment FTEF} = \frac{(\text{Total IFF} * \text{Adjusted WTU} * \text{TTF})}{\text{Total Adjusted WTU}}$$

- For PHYS 0002A 15 course, Segment FTEF = 1.0 * 2 * 1 / 12 = 0.167
- For PHYS 0051 05 course, Segment FTEF = 1.0 * 3 * 1 / 12 = 0.25

Case #2: A tenured/tenure track faculty who taught 5 courses. This faculty had 3.0 assigned time WTU for Excess Enrollment (assigned time Code 11) for BIOL 0065, section 01.

Course	CS Number	Course Unit	TTF	AWTU	Segment FTEF
BIOL 0065 01	2	3	1	3	0.273
BIOL 0065 11	16	1	1	2	0.182
BIOL 0065 12	16	1	1	2	0.182
BIOL 0065 13	16	1	1	2	0.182
BIOL 0065L 01	16	1	1	2	0.182
Total				11	1.000

$$\begin{aligned} \text{Total IFF} &= (\text{Total AWTU} + \text{Assigned Time WTU of 3}) / 12 \\ &= (11 + 3) / 12 = 1.16 \end{aligned}$$

Since we cannot have IFF more than 1.0, we normalized total IFF to 1.0

$\text{Segment FTEF} = \frac{(\text{Total IFF} * \text{Adjusted WTU} * \text{TTF})}{\text{Total Adjusted WTU}}$

- For BIOL 0065 01 course, Segment FTEF = $1.0 * 3 * 1/11 = 0.273$
- For BIOL 0065 11 course, Segment FTEF = $1.0 * 1 * 1/11 = 0.182$

Note: if this faculty did not have assigned time, total IFF would be 0.917 (or $11 / 12$)

Case #3: A temporary faculty member who taught 3 courses.

Course	CS Number	Course Unit	TTF	AWTU	Segment FTEF
PHYS 0050 19	16	1	1	2	0.133
PHYS 0051 30	16	1	1	2	0.133
PHYS 0051 32	16	1	1	2	0.133
Total				6	0.399

$$\begin{aligned} \text{Total IFF} &= (\text{Total AWTU}) / 12 \\ &= 6 / 12 = 0.4 \end{aligned}$$

$\text{Segment FTEF} = \frac{(\text{Total IFF} * \text{Adjusted WTU} * \text{TTF})}{\text{Total Adjusted WTU}}$

- Segment FTEF = $0.4 * 2 * 1/6 = 0.133$