

**NORCO**  
COLLEGE

**Efficiency?**

**2/26: What is an FTES?**

**3/19: WSCH, DSCH, PA and other fun acronyms**

**4/23: Efficiency?**

**5/21: What is a SCFF?**

Brought to you by Jason Parks

1

**NORCO** **Efficiency?**  
COLLEGE

**Today's Goals**

- Understand what we mean by "Efficiency"
- How do we manage/balance
- How does efficiency relate to scheduling & FTES

2

**NORCO**  
COLLEGE

## Efficiency?

### Definitions

- **FTES = Full Time Equivalent Students**
  - 1 FTES = 525 hours of instruction
  - Counted at Census for most (WSCH & DSCH) courses
- **FTEF = Full Time Equivalent Faculty**
  - For standard lecture 1 FTEF = 15 *equated* hours of instruction per week

3

**NORCO**  
COLLEGE

## Efficiency?

### FTEF Primer

- Everything is based on the 18-week semester
- Consider a faculty member teaching a 3-unit lecture course (54 total hours)
  - $54 \text{ hours} / 18 \text{ weeks} = 3 \text{ hours}$
  - (At RCCD:  $54 \text{ hours} / 16 \text{ weeks} \sim 3.4 \text{ hours}$  is 3 *equated* hours)
  - $3 \text{ equated hours} / 15 = 0.2 \text{ FTEF}$

4

**NORCO COLLEGE** Efficiency?

## FTES/FTEF is called Productivity

- Measure of our efficiency
- Measure of the number of students being taught by “each” faculty member
  - Akin to the student to faculty ratio we often hear on the news for K-12 school

5

**NORCO COLLEGE** Efficiency?

### Example: 3-unit lecture course with 30 students enrolled at Census

- $FTES = 30 \text{ students} \times 3.4 \text{ hours} \times 16.4 \text{ TLM} / 525 = 3.19 \text{ FTES}$
- $FTEF = 3 / 15 = 0.2$
- $FTES / FTEF = 3.19 / 0.2 = 15.95$

### Example: Same Class as Above, Online

- $FTES = 30 \text{ students} \times 3 \text{ units} \times 16.4 \text{ TLM} / 525 = 2.81 \text{ FTES}$
- $FTEF = 3 / 15 = 0.2$
- $FTES / FTEF = 2.81 / 0.2 = 14.05$

6

**NORCO COLLEGE** Efficiency?

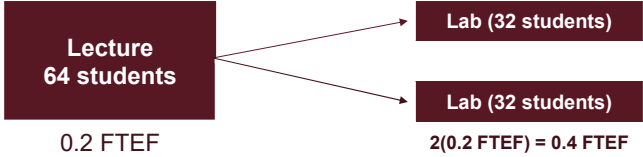
**Example: BIO-1 = 54 hours lecture, 54 hours lab, with 32 students**

- $\text{FTES} = 32 \times 6.8 \times 16.4 / 525 = 6.8 \text{ FTES}$
- $\text{FTEF} = 0.2 \text{ for Lecture} + 0.2 \text{ for Lab} = 0.4 \text{ total}$
- $\text{FTES} / \text{FTEF} = 6.8 / 0.4 = 17.0$

7

**NORCO COLLEGE** Efficiency?

**“Double Sections” to increase productivity**

- **BIO-1:**


Lecture  
64 students  
0.2 FTEF

Lab (32 students)  
0.2 FTEF

Lab (32 students)  
0.2 FTEF

$2(0.2 \text{ FTEF}) = 0.4 \text{ FTEF}$
- **FTES: LEC =  $64 \times 3.4 \times 16.4 / 525 = 6.80 \text{ FTES}$**   
**LAB =  $32 \times 3.4 \times 16.4 / 525 = 3.40 \text{ FTES} \times 2 = 6.8 \text{ FTES}$**   
**Total =  $6.80 + 2(3.40) = 13.6 \text{ FTES}$**
- $\text{FTES} / \text{FTEF} = 13.6 / 0.6 = 22.67$

8

**NORCO COLLEGE** Efficiency?

**Example: COM-1H, Honors with cap of 20 students**

- $FTES = 20 \times 3.4 \times 16.4 / 525 = 2.12$  FTES
- $FTEF = 0.2$
- $FTES / FTEF = 2.12 / 0.2 = 10.6$

**Combine a COM-1H with a BIO-1 “Double section”**

- $FTES = 2.12 + 13.6 = 15.72$
- $FTEF = 0.2 + 0.6 = 0.8$
- $FTES / FTEF = 15.72 / 0.8 = 19.67$

9

**NORCO COLLEGE** Efficiency?

LECTURE HOURS	HOURS PER WEEK	HOURS PER TERM	TERM WEEKS	CENSUS ENROLL	WEEKLY STUDENT CONTACT HOURS (WSCH)	FULL-TIME EQUIVALENT FACULTY (FTEF)	WSCH PER FTEF	FULL-TIME EQUIVALENT STUDENTS (FTES)	FTES PER FTEF
54	3.4	55.8	16.4	10	34	0.200	170	1.06	5.3
54	3.4	55.8	16.4	20	68	0.200	340	2.12	10.6
54	3.4	55.8	16.4	30.9	105	0.200	525	3.28	16.4
54	3.4	55.8	16.4	35	119	0.200	595	3.72	18.6
54	3.4	55.8	16.4	40	136	0.200	680	4.25	21.2
54	3.4	55.8	16.4	50	170	0.200	850	5.31	26.6
72	4.6	75.4	16.4	35	161	0.2667	604	5.03	18.9
90	5.7	93.5	16.4	35	199.5	0.3333	599	6.23	18.7

10