

New Faculty Proposal

GRCC Physics

GRCC Physics: Continuous growth

- 2003:
 - 60% of physics classes taught by adjuncts
 - Full time faculty expands from 2 instructors to 3
 - Chitra Solomonson hired

- 2009:
 - Demand has increased by over 64%
 - 65% of physics classes taught by adjuncts...
 - ... so we're back where we started, but bigger.

GRCC Physics: Continuous growth

- 2002 – 2007: 50% increase in five years
- 2007 – 2009: 48% increase in two years
- 2009 - 2010: demand keeps growing but...
 - ***Growth stops***
 - (Well, it didn't really stop.
One section was added but Ajay was needed to teach astronomy.)

Growth didn't quite stop:

- Total students taught by the physics department grew by about 2% last year.
- Ajay Narayanan also taught astronomy.

Table 1. Annualized FTEs by Department/Program (Includes all quarters)

Nr.	Program	2007-08	2008-09	2009-10	% Change 07-08 to 09-10
		Annual FTE	Annual FTE	Annual FTE	
1	AMES	23	28	27	15%
	% Change	-1%	20%	-4%	
2	ESOL ¹	649	660	646	0%
	% Change	5%	2%	-2%	
3	Developmental Math ²	407	432	487	20%
	% Change	-1%	6%	13%	
4	Library	2	2	1	-56%
	% Change	71%	10%	-59%	
5	Natural Resources			85	98%
	% Change			24%	
6	Philosophy			202	27%
	% Change	0%	21%	5%	
7	Physics	122	139	138	13%
	% Change	29%	15%	-1%	
8	Read/Composition ³	741	775	886	16%

This isn't exactly accurate

GRCC Physics: Continuous growth

- 2002 – 2007: 50% increase in five years
- 2007 – 2009: 45% increase in two years
- 2009: demand keeps growing
 - *Growth stops*

(Well, it didn't really stop. One section was added but Ajay Narayanan was needed to teach astronomy. More on that later.)
- Why? Classrooms are full (104% on average).
- Why? Teacher schedules = max + moonlight

No teachers. No chairs. No more classes.

Demand for growth continues...

- **Spring 2010:**
 - New sections of Phys 201 and Astro 101 “added” *at the expense of other (full) classes*
 - Engineering students rearrange schedules (delay graduation??) because they can’t get into physics.
 - Students leave GRCC to take physics at Highline, Tacoma CC, UW, and elsewhere
- **Summer 2010:** 37 students show up for Physics 201 class with 27 seats (class capacity = 24)
- **Fall 2010:** Another dozen students fail to get into Physics 201.

How great is the unmet need?

- We hear from...
 - A dozen+ would be 200-level students a quarter
 - A couple of dozen would be 100-level students
 - At least a couple dozen would be Astro students
 - This year we have canceled classes for 100+ seats in survey classes to make room for science majors
- We have no idea how many we *don't* hear from, discouraged by long wait lists

No more room...

- Physics lab rooms are full 7:30 AM – 9:30 PM
- Overflow has filled the schedule for SC 109
- No more room in Marv Nelson SC



Anybody got a classroom?

- If students are driving to HCC, TCC, and UW, then they would also drive to...



Our survey says...

- Students leaving GRCC to get a physics class *overwhelmingly* respond that they would rather take physics at GRCC in Kent.
- Schedule can be arranged to accommodate students on both campuses.
- Math Division is willing to provide support.
- Equipment money and lab are available.

The cost of expansion:

- A new full-time faculty member in **AUBURN**
 - Other colleges have attempted expansion with adjuncts: and experienced not-so-pretty results.
 - New full-time teachers sent to branch campuses experience isolation, frustration... and often leave.
- Our **only** plan to accommodate continued growth of GRCC physics:
 - One current full-time teacher (eq.) teaches in Kent.
 - That full-time faculty member is replaced by a new tenure-track position in Auburn.

The cost of no expansion:

Either:

- We add a new full-time position
 - or -
 - We fail to meet demand.

The cost of no expansion:

- Ripple effects in STEM Programs:
 - Engineering (!)
 - Chemistry and biology
 - Math
 - and Allied Health.
- Ripple effects in business and liberal arts:
 - 2010 – 2011: 100 seats in survey classes have been cut to make room for “science major” sequences

Where's the *increase* in demand?

- Mostly engineers (75% increase in Phys 201)
 - These students will leave to get physics elsewhere
- International students (50% of the increase)
- Biology and health (50% increase in Phys 111)
- AA-DTA students and business majors
 - 33% increase in Phys 105 and Phys 110
- Astronomy (especially for future teachers)
 - Full Physics 105 cut to make room for Astro 101.
 - There is demand for 50% increase in Astro 101.

Is it just the economy???

Physics enrollment at HCC has been flat.

- Fewer than 20 sections per year

Physics at GRCC and Bellevue:

- Bellevue College:
 - 30,000 students
 - 55 sections of physics per year
- GRCC
 - 10,000 students
 - 54 sections of physics per year

The future...

- The physics faculty, dean, and lab-tech have brainstormed.
- We've met with faculty in math, chemistry, and engineering.
- We don't see a way to grow to meet the unmet need...
...without expanding into Kent and hiring another full time teacher.

New Physics Faculty Proposal

The cost of no expansion:

- As far as we can figure out, either:

We add a new full-time position

- or -

We fail to meet demand.