

Transferring from Red Rocks to Mines

Todd Ruskell
Colorado School of Mines
truskell@mines.edu

Barbra Maher
Red Rocks Community College
barbra.maher@rrcc.edu

Context

⌘ **School of Mines:**

- ⌘ Premier public engineering school in Colorado
- ⌘ 4200 undergraduates
- ⌘ 65% residents
- ⌘ 263 Physics Majors

⌘ **Red Rocks Community College**

- ⌘ 5 miles to Mines
- ⌘ 14,000 students

⌘ **Formal transfer agreement**

- ⌘ About 20 years old

⌘ **State Umbrella**

- ⌘ gtPathways guarantees transfer of certain courses, including intro Chemistry, Physics, and Calculus sequences, based on competencies

Mechanics of Agreement

- ⌘ First of 4 agreements with local community colleges
- ⌘ Regular faculty meetings
 - ⌘ Formation of agreement
 - ⌘ Maintenance of agreement
- ⌘ Annual recruiting meeting
- ⌘ Regular updates to agreement

Course Equivalencies

Mines Courses			Red Rocks Courses		
MATH 111	Calculus I	4 hr	MAT 201	Calculus I	5 hr
MATH 112	Calculus II	4 hr	MAT 202	Calculus II	5 hr
MATH 213	Calculus III	4 hr	MAT 204	Calculus III/Eng Apps	5 hr
MATH 225	Differential Eqns	3 hr	MAT 261	Diff Eq/Eng Apps	4
PHGN 100	Physics I	4.5 hr	PHY 211	Physics I	5 hr
PHGN 200	Physics II	4.5 hr	PHY 212	Physics II	5 hr
CHGN 121	Chemistry I	4 hr	CHE 111	Chemistry I	5 hr
CHGN 122	Chemistry II	4 hr	CHE 112	Chemistry II	5 hr
GEGN 101	Earth and Env Sys	4 hr	GEY 111	Physical Geology	4 hr
CSCI 101	Intro to Comp Sci	3 hr	CSC 116	Logic & Prgm Design	3 hr
EBGN 201	Principles of Econ	3 hr	ECO 201	Macroeconomics	3 hr
			and ECO 202	Microeconomics	3 hr
LAIS 100	Nature and Human Values	4 hr	PHI 218 and ENG131	Environmental Ethics	3 hr
				Technical Writing	3 hr
LAIS 200	Human Systems	3 hr	HIS 247	20 th Cent. Wrld Hist.	3 hr

Completion Rates 2006-2012

⌘ **Baseline:**

- ⌘ Overall CSM 6-year graduation rate ~69%
- ⌘ Overall transfer 6-year graduation rate ~73%
- ⌘ Resident transfer 6-year graduation rate ~76%

⌘ **Students transferring with Physics I credit:**

- ⌘ From Red Rocks: 195 transfer students, 167 graduated or in progress (86%)
- ⌘ From 3 other transfer agreement institutions: 90 transfer students, 74 graduated or in progress (82%)

Subsequent Success in Physics II

- ⌘ **Physics I transfer credit from Red Rocks (N=195):**
 - ⌘ Average Physics II Grade: 2.7
 - ⌘ DFW Rate: 44%
- ⌘ **Physics I transfer credit from one of the other three agreement institutions (N=90):**
 - ⌘ Average Physics II Grade: 2.5
 - ⌘ DFW Rate: 24%
- ⌘ **Mines Native Students (N=3807):**
 - ⌘ Average Physics II Grade: 2.7
 - ⌘ DFW Rate: 12%

Physics Major Recruiting

⌘ Physics majors transferring with Physics I credit:

- ⌘ From Red Rocks: 9 transfers; 5 graduated or in progress
- ⌘ From 3 other transfer agreement institutions: 7 transfers, 5 graduated or in progress

Conclusions

- ⌘ Transfer Students from Red Rocks have highest completion rate
- ⌘ But. . .transfer students don't do as well in follow-on physics course
- ⌘ Agreements not currently a significant source of Physics majors
- ⌘ Come by Poster PST2D02 from 9:15-10:00