

Messaging and Advising to Engineering Transfer Students

Spring 2011 Meeting

- Engineers are creative inventors who change the world (www.engineeringmessages.org)
- Joint E-APP/APP (www.eng.iastate.edu/transfer/app)
- Focus on the “Engineering Basic Program” while in the community college
- Use the Engineering Transfer Student Webpage (www.eng.iastate.edu/transfer)
- Use Transit (<https://transit.iastate.edu/>)
- Actions that increase retention and success in engineering:
 - E-APP – Get to know your ISU Adviser and Transfer Peer Mentors!
 - Campus Visits/Orientation
 - Move to campus/Live in Ames
 - Join Learning Communities (the more the better!)
- GPA matters!
- Prepare for your adjustment to Iowa State’s College of Engineering
 - Take 12-15 credits your first semester at ISU
 - Get to know engineering faculty, staff, and students – reach out to them!
 - Access academic, social, and professional resources

Graduation Rates in Engineering by ISU Basic Program Grades

Graduation Rates Based on ISU Basic Program Grades

GPA	ISU Basic Program Grades					
	First Time First Year Admits	n	All IA CC Transfers	n	DMACC Transfers	n
less than 1.0 GPA	0%	184	0%	40	0%	15
1.0 - 2.0 GPA	4%	419	19%	62	18%	11
2.0 - 2.5 GPA	33%	706	48%	60	50%	18
2.5 - 3.0 GPA	57%	999	53%	75	59%	22
3.0 - 3.5 GPA	71%	1081	68%	73	57%	21
3.5 - 4.0 GPA	79%	827	82%	65	92%	12

Fall 2002-2005 Admits

All IA CC Transfers Includes DMACC Transfers

Graduation Rates in Engineering by Transfer Basic Program Grades

Graduation Rates Based on Transfer Basic Program Grades

GPA	Transferred Basic Program Grades					
	First Time First Year Admits	n	All IA CC Transfers	n	DMACC Transfers	n
less than 1.0 GPA	0%	7				
1.0 - 2.0 GPA	18%	17	0%	12		
2.0 - 2.5 GPA	41%	139	33%	67	26%	23
2.5 - 3.0 GPA	49%	109	50%	115	47%	30
3.0 - 3.5 GPA	55%	368	50%	139	46%	39
3.5 - 4.0 GPA	65%	631	64%	139	79%	24

Fall 2002-2005 Admits

All IA CC Transfers Includes DMACC Transfers

First Semester, First Year and Transfer Grades with Retention by Institution

Admit Status	Fall 2002 - Fall 2009 data						Fall 2002 - Fall 2008 data		
	First Fall GPA	First Year GPA	Transfer GPA	ENGR Retention after 1 year	ISU Retention after 1 year	N	ENGR Retention after 2 years	ISU Retention after 2 years	N
DMACC transfer	2.15	2.27	2.91	60%	76%	291	43%	63%	236
Non-DMACC IA CC transfer	2.38	2.48	3.13	68%	83%	720	56%	73%	622
Non-Iowa CC transfer	2.59	2.67	3.05	73%	82%	271	57%	65%	231
Four-year College transfer	2.76	2.86	3.04	70%	80%	714	50%	59%	598
High School Admit	2.72	2.78	3.46	74%	89%	9,065	61%	81%	7,737

Grades in Key Basic Program Courses by Institution

Basic Program Grades, all COE admits Fall 2002 - Fall 2010

Admit Status	Math 165 GPA		Math 166 GPA		Phys 221 GPA		Chem 177 GPA	
	at ISU	Transferred	at ISU	Transferred	at ISU	Transferred	at ISU	Transferred
DMACC transfer	2.04	3.06	1.95	3.00	1.67	2.79	2.37	2.63
Non-DMACC IA CC transfer	2.14	3.06	2.27	3.11	2.19	3.09	2.53	3.00
Non-Iowa CC transfer	2.24	3.11	2.44	3.08	2.25	3.02	2.41	3.07
Four-year College transfer	2.54	3.10	2.66	2.96	2.43	2.87	2.64	2.91
High School Admit	2.63	3.35	2.80	3.14	2.58	2.96	2.90	3.30

updated 9/19/2011, CAPI

Grades in Key Basic Program Courses by Institution

Basic Program Grades (F grades dropped for ISU classes), all COE admits Fall 2002 - Fall 2010

Admit Status	Math 165 GPA		Math 166 GPA		Phys 221 GPA		Chem 177 GPA	
	at ISU	Transferred	at ISU	Transferred	at ISU	Transferred	at ISU	Transferred
DMACC transfer	2.47	3.06	2.54	3.00	2.23	2.79	2.55	2.63
Non-DMACC IA CC transfer	2.47	3.06	2.62	3.11	2.45	3.09	2.75	3.00
Non-Iowa CC transfer	2.87	3.11	2.71	3.08	2.44	3.02	2.49	3.07
Four-year College transfer	2.95	3.10	2.94	2.96	2.68	2.87	2.83	2.91
High School Admit	2.87	3.35	2.95	3.14	2.68	2.96	3.02	3.30

updated 9/19/2011, CAPI

Background Data by Admission Type

Admission Type	N	ISU Basic Program GPA		Math ACT Scores		High School GPA		CC Transfer GPA	
		Mean	n	Mean	n	Mean	n	Mean	n
DMACC Transfer	345	2.16	241	24.6	162	3.05	150	2.92	340
Non-DMACC IA CC Transfer	846	2.39	589	25.2	488	3.30	435	3.14	843
Non-IA CC Transfer	355	2.72	254	25.3	89	3.34	122	3.07	349
Non-CC Transfer	825	2.85	603	27.1	314	3.54	326		
High School Admit	10,511	2.71	8,997	28.0	9,849	3.63	10,441		

College of Engineering Admits Fall 2002-Fall 2010

Demographic Comparison of IA CC Admits to Engineering vs. All Admits to Engineering

Table 1

Demographics of Data

Admit Group	n	Female	Black	White	Hispanic	American Indian	Asian	Hawaiian	U.S. Citizen
Community College Transfers 2002-2005	472	7.0%	2.5%	77.5%	1.3%	1.1%	5.3%	0.0%	92.2%
Community College Transfers 2002-2008	1191	6.8%	3.4%	81.2%	1.5%	0.8%	3.6%	0.0%	92.9%
All Entering Engineers 2002-2008*	12882	14.5%	2.5%	80.3%	2.6%	0.3%	4.2%	0.0%	91.3%

*Includes Community College Transfers

Table 1 shows that there is no difference in the demographics of the students in the study except that the percent of females entering engineering from IA community colleges is significantly lower than that of all admits to engineering.

Percent of Basic Program Courses by Institution

Percent for Basic Program Courses
for Iowa Community College Transfer Students

Class	Number From ISU	Percent From ISU	Number from IA CC	Percent from IA CC
MATH165	306	30.7%	690	69.3%
MATH166	363	39.5%	556	60.5%
PHYS221	458	52.8%	410	47.2%
ENGR160	383	77.7%	110	22.3%

This shows the number and percent of Iowa Community College students that took the course at ISU compared to the number and percent that took this course at an Iowa Community College for the group of students that entered engineering between 2002 and 2008.