



## **REPORT ON STEM ENROLLMENT AND GRADUATION TRENDS**

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# ARKNASAS DEPARTMENT OF HIGHER EDUCATION 2009 REPORT ON STEM ENROLLMENT AND GRADUATION TRENDS

The purpose of this report on Arkansas STEM (Science, Technology, Engineering, and Mathematics) program activity is to inform education and policy makers about the need to prepare and graduate more students with degrees in STEM education fields.

Arkansas is witnessing a significant shortfall in its ability to meet the STEM education needs of its students which will have tremendous implications for the state's scientific and engineering workforce needed for the next decade. Addressing this issue is absolutely essential for the continued economic success of Arkansas. All Arkansas citizens must have the basic scientific, technological, and mathematical knowledge to make informed personal choices, to develop human capital, and to thrive in the increasingly technological global marketplace. However, the number of STEM graduates in Arkansas has declined during the past five years.

## Enrollment Trends

As a percent of total STEM majors over six years (fall term only, AY2004-09), freshmen account for 35.5% of STEM majors, sophomores account for 23% of STEM majors, juniors account for 16.9% of STEM majors, and seniors<sup>1</sup> account for 24% of STEM majors.<sup>2</sup> These percentages have been relatively stable during the time period reviewed.

Term (Academic Year)	Students	Freshmen	Percent	Sophomore	Percent	Junior	Percent	Senior	Percent
2008 Fall (2009)	10,288	3,656	35.5%	2,411	23.4%	1,793	17.4%	2,382	23.2%
2007 Fall (2008)	9,808	3,428	35.0%	2,295	23.4%	1,675	17.1%	2,334	23.8%
2006 Fall (2007)	9,382	3,436	36.6%	2,110	22.5%	1,528	16.3%	2,246	23.9%
2005 Fall (2006)	9,262	3,260	35.2%	2,190	23.6%	1,570	17.0%	2,198	23.7%
2004 Fall (2005)	9,247	3,257	35.2%	2,196	23.7%	1,469	15.9%	2,297	24.8%
2003 Fall (2004)	9,745	3,475	35.7%	2,085	21.4%	1,723	17.7%	2,380	24.4%
TOTAL	57,732	20,512	35.5%	13,287	23.0%	9,758	16.9%	13,837	24.0%

As seen above, STEM enrollment has steadily increased from AY2003 to 2008 for each student classification. Overall, STEM enrollment rose from 9,745 in AY2004 to 10,288 in AY2009 marking a 5.6% increase.<sup>3</sup> However, this does not hold true for students graduating within the STEM fields as discussed below under the Degree Production section.

Most STEM majors are white males (75.3% white, 68% male). The largest decline (-14.6%) in STEM enrollment came from the Non-Resident Alien category. The Hispanic category experienced the largest increase (81.1%) between AY 2004-09 (see Table 2).

<sup>1</sup> The percent of STEM seniors is larger than that of STEM juniors due to seniors taking longer than 4 years to graduate, i.e., the percent of STEM seniors would include fourth- and fifth-year seniors and possibly even sixth-year seniors.

<sup>2</sup> See Attachment D.

<sup>3</sup> Ibid.

Term (Academic Year)	Students	Gender		Race/Ethnicity						
		Male	Female	Asian/PI*	Black	Hispanic	AI/AN**	White	NRA***	Unknown
2008 Fall (2009)	10,288	7,077	3,394	341	1,615	288	137	7,605	311	174
2007 Fall (2008)	9,808	6,491	3,503	306	1,517	262	147	7,304	286	172
2006 Fall (2007)	9,382	6,396	3,144	289	1,396	186	125	7,135	263	146
2005 Fall (2006)	9,262	6,322	3,072	257	1,425	164	117	7,028	247	156
2004 Fall (2005)	9,247	6,246	3,102	240	1,482	153	131	6,950	267	125
2003 Fall (2004)	9,745	6,712	3,205	253	1,486	159	118	7,437	364	100
<b>TOTAL</b>	<b>57,732</b>	<b>39,244</b>	<b>19,420</b>	<b>1,686</b>	<b>8,921</b>	<b>1,212</b>	<b>775</b>	<b>43,459</b>	<b>1,738</b>	<b>873</b>
<b>PERCENT</b>	<b>100.0%</b>	<b>68.0%</b>	<b>33.6%</b>	<b>2.9%</b>	<b>15.5%</b>	<b>2.1%</b>	<b>1.3%</b>	<b>75.3%</b>	<b>3.0%</b>	<b>1.5%</b>
<b>AVERAGE</b>	<b>9,622</b>	<b>6,541</b>	<b>3,237</b>	<b>281</b>	<b>1,487</b>	<b>202</b>	<b>129</b>	<b>7,243</b>	<b>290</b>	<b>146</b>
<b>GROWTH</b>	<b>5.6%</b>	<b>5.4%</b>	<b>5.9%</b>	<b>34.8%</b>	<b>8.7%</b>	<b>81.1%</b>	<b>16.1%</b>	<b>2.3%</b>	<b>-14.6%</b>	<b>74.0%</b>

\*Asian/PI = Asian or Pacific Islander

\*\*AI/AN = American Indian or Alaskan Native

\*\*\*NRA = Non-Resident Alien

Biology/Biology Sciences General (CIP 26.0101) has seen a 54.2% increase in enrollment between AY 2003 and AY 2008 and currently maintains the highest enrollment of the STEM majors offered in Arkansas (at 24.3% or 2,920 students in AY2008). Rounding out the top five behind Biology are Computer and Information Sciences, General (CIP 11.0101 at 16%); Chemistry, General (CIP 40.0501 at 8.2%); Mechanical Engineering (CIP 14.1901 at 5.2%); and Mathematics, General (CIP 27.0101 at 4.2%).<sup>4</sup>

## Degree Production

The total number of STEM students receiving bachelors degrees from four-year institutions has declined from 1,277 to 1,221 (a 4.6% decrease) between 2004 and 2008.<sup>5</sup> At the associate degree level (including both two-year and four-year institutions), the number of STEM students has increased nearly 27% between 2004 and 2008 (from 562 to 712 with the highest increase during the 2008 academic year). However, this growth only occurred at the two-year institutions (see Table 3).

Inst. Type	AY2004	AY2005	AY2006	AY2007	AY2008	TOTAL	% Change
4-Year	168	158	168	142	118	754	-29.8%
2-Year	394	371	399	385	594	2,143	50.8%
<b>TOTAL</b>	<b>562</b>	<b>529</b>	<b>567</b>	<b>527</b>	<b>712</b>	<b>2,897</b>	<b>26.7%</b>

At the four-year institution baccalaureate level, UAF<sup>6</sup> continues to have the highest number of STEM graduates, but has experienced a 12.9% decline between AY2004 and 2008. In addition to UAF, four other schools (ASUJ, ATU, HSU, and SAUM) have also experienced a decline in STEM graduates. The total number of state-wide graduates has increased by 9%, but total state-wide STEM graduates have declined by 1.8 percentage points. (See Table 4).

<sup>4</sup> See Attachment F.

<sup>5</sup> See Attachment B.

<sup>6</sup> See school abbreviation definitions on page 8.

<b>Table 4: STEM Graduates (Baccalaureate Level)</b>							
Institution	AY2004	AY2005	AY2006	AY2007	AY2008	TOTAL	% Change
ASUJ	190	221	183	127	140	861	-35.7%
ATU	144	136	143	135	118	676	-22.0%
HSU	46	37	33	34	42	192	-9.5%
SAUM	54	45	36	27	46	208	-17.4%
UAF	498	476	426	477	441	2,318	-12.9%
UAFS	19	23	31	60	40	173	52.5%
UALR	151	155	146	168	164	784	7.9%
UAM	19	26	27	23	26	121	26.9%
UAPB	43	57	59	49	58	266	25.9%
UCA	113	106	102	139	146	606	22.6%
<b>STEM Graduates</b>	<b>1,277</b>	<b>1,282</b>	<b>1,186</b>	<b>1,239</b>	<b>1,221</b>	<b>6,205</b>	<b>-4.6%</b>
Statewide Bacc. Graduates	8,536	8,843	8,935	9,189	9,306	44,809	9.0%
STEM % of Statewide	15.0%	14.5%	13.3%	13.5%	13.1%	13.8%	-1.8%

As a percent of the state total (all Arkansas graduates between AY2004-08), only the doctoral and related professional degrees experienced an increase (3.9%) in STEM related fields. All other STEM degree (associates, bachelor, and master's) had a slight drop in graduates (see Table 5).

<b>Table 5: STEM Graduates as a Percent of Statewide Totals*</b>						
Degree Type	AY2004	AY2005	AY2006	AY2007	AY2008	% Change
STEM Percent of Statewide (Assoc.)	6.6%	5.6%	5.6%	4.9%	6.0%	-0.6%
STEM Percent of Statewide (Bacc.)	15.0%	14.5%	13.3%	13.5%	13.1%	-1.8%
STEM Percent of Statewide (Masters)	10.0%	9.3%	9.8%	9.0%	9.4%	-0.6%
STEM Percent of Statewide (Doctoral)	6.9%	9.0%	8.7%	7.0%	10.8%	3.9%

\*Refer to Attachment B for percentages and raw numbers.

Table 6

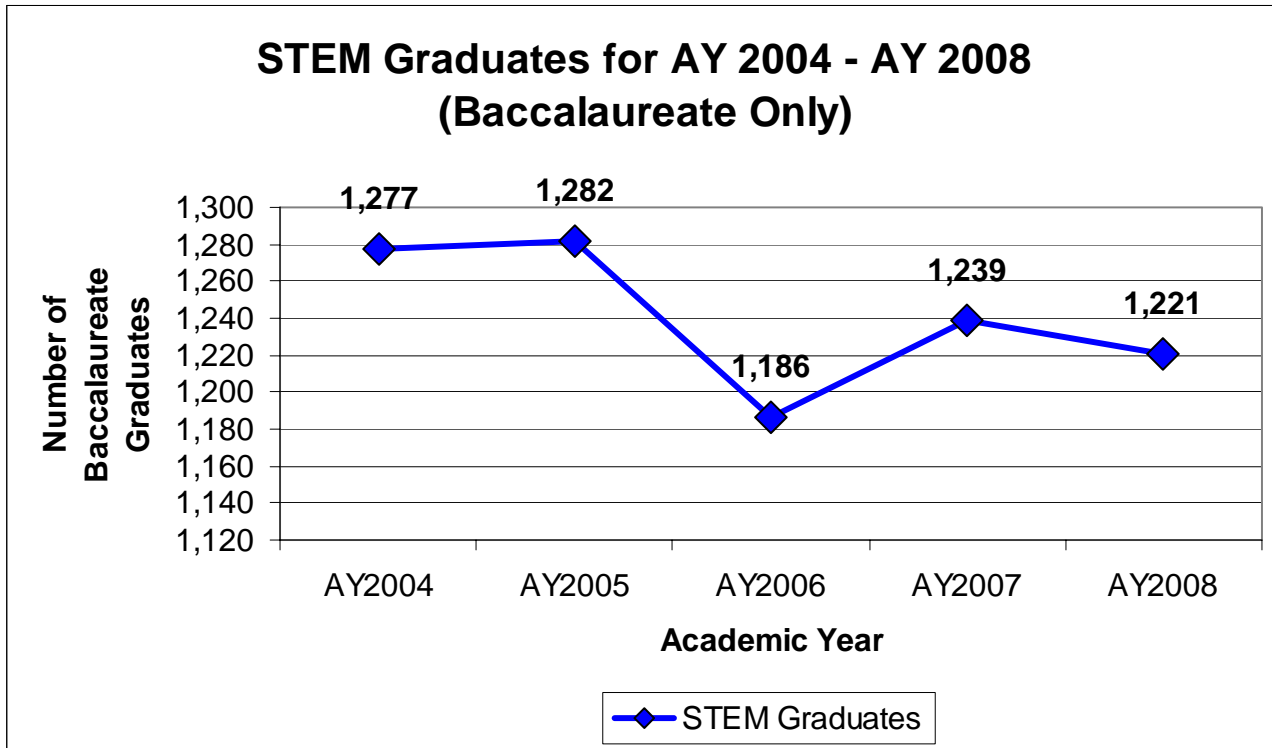
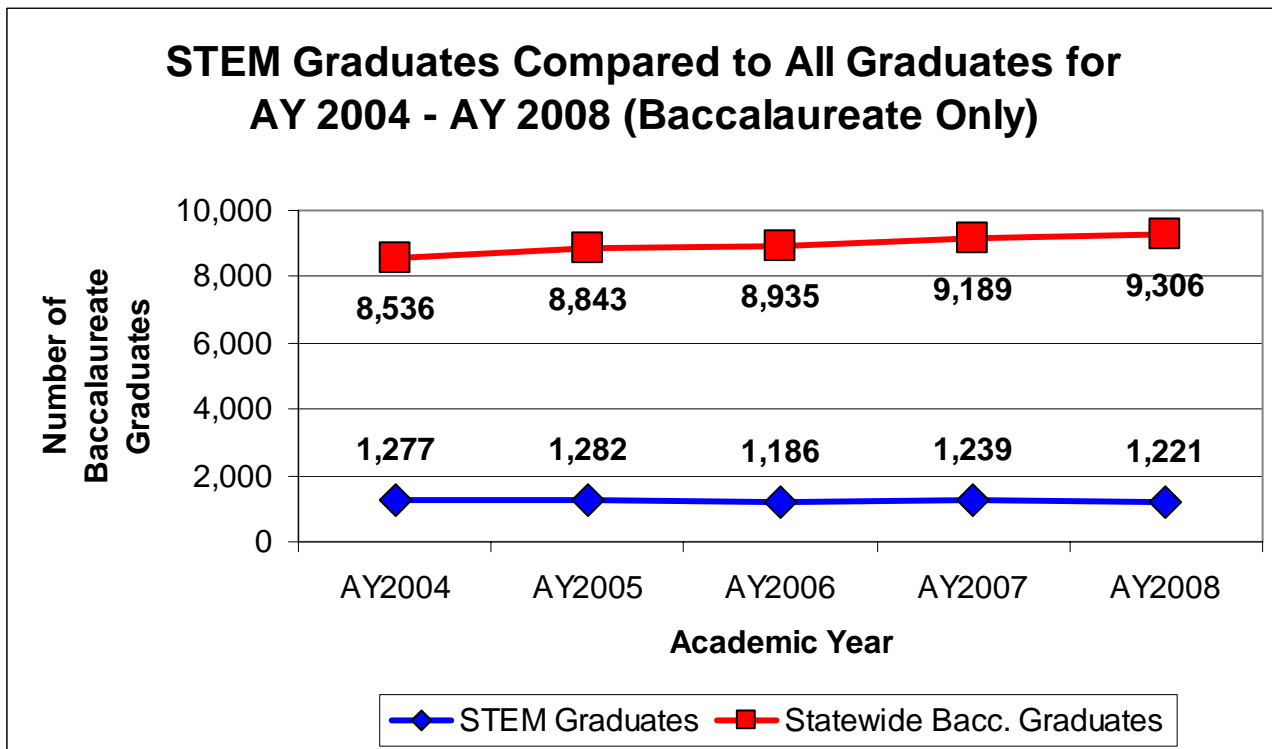


Table 7

7



<sup>7</sup> Refer to Attachment J for Tables 6 & 7.

Of the 6,205 STEM baccalaureates (AY2004-08)<sup>8</sup>, the majority (18.1%) come from CIP category 26: Biological and Biomedical Sciences. Of the 10,717 total STEM graduates (associates, bachelors, masters and doctoral/professional, AY2004-08), the majority (25.3%) are from the CIP category 11: Computer and Information Sciences and Support Services, however, this category has seen the highest decline (-44.8%) in bachelor degrees awarded.<sup>9</sup>

Of the AY 2004 Baccalaureate STEM graduates, 325 enrolled in graduate school; of the AY 2008 Baccalaureate STEM graduates, 191 enrolled in graduate school. Over the course of five years, those baccalaureate degree holders who majored in a STEM related field seeking a post-baccalaureate STEM degree have declined by 41.2% as seen on Table 8.

	<b>AY2004</b>	<b>AY2005</b>	<b>AY2006</b>	<b>AY2007</b>	<b>AY2008</b>	<b>% CHANGE</b>
Number Graduating with Baccalaureate (degree level 05*)	1,270	1,270	1,178	1,228	1,209	-4.8%
Number Enrolled in Public Institution Seeking Degree Levels of 06-12*	325	315	303	259	191	-41.2%
Graduate School Enrollment Rate (% of STEM Baccalaureates)	25.6%	24.8%	25.7%	21.1%	15.8%	

Note: These totals represent the number of distinct individuals (bachelors and post-baccalaureate AY2004-2008) not total degrees awarded (those students graduating with double-majors are counted only once).

\*Degree Levels:  
 06 = Post-Baccalaureate  
 07 = Masters Degree  
 08 = Specialist Degree  
 09 = Doctoral Degree  
 10 = First Professional Degree  
 11 = Post-First Professional Certificate  
 12 = Post-First Professional Degree

## Discussion

As referenced previously, the good news is that overall STEM enrollment is up by 5.6% since AY 2004. As a percent of all statewide graduates, those obtaining doctoral degrees in STEM fields have risen by 3.9% over the past 5 years.<sup>10</sup> There is also a steady increase in enrollment for those majoring in Construction Engineering Technology/Technician (CIP 15.1001),<sup>11</sup> and an increase in graduation rates for those majoring in Chemistry General (CIP 40.0501) and Biology/Biological Sciences General (CIP 26.0101).<sup>12</sup> While these are all good indicators, there are also some overall problems that need attention.

Computer and Information Sciences General (CIP 11.0101) is listed in the top five STEM majors (as a percent of total STEM student majors), but its enrollment has declined by 27% between 2003 and 2008. In addition, other declining STEM majors include Data Processing and Data Processing Technology/Technician (CIP 11.0301 declined by -51.9%); Industrial Engineering (CIP 14.3501 declined by -53%); Agricultural/Biological Engineering and Bioengineering (CIP 14.0301 by -32.6%);

<sup>8</sup> See Attachment J.

<sup>9</sup> See Attachment A.

<sup>10</sup> See Attachment B.

<sup>11</sup> See Attachment F.

<sup>12</sup> See Attachment C.

Electrical, Electronics and Communications Engineering (CIP 14.1001 by -17.8%); and Computer and Information Sciences, General (CIP 11.0101 by -17.3%).<sup>13</sup>

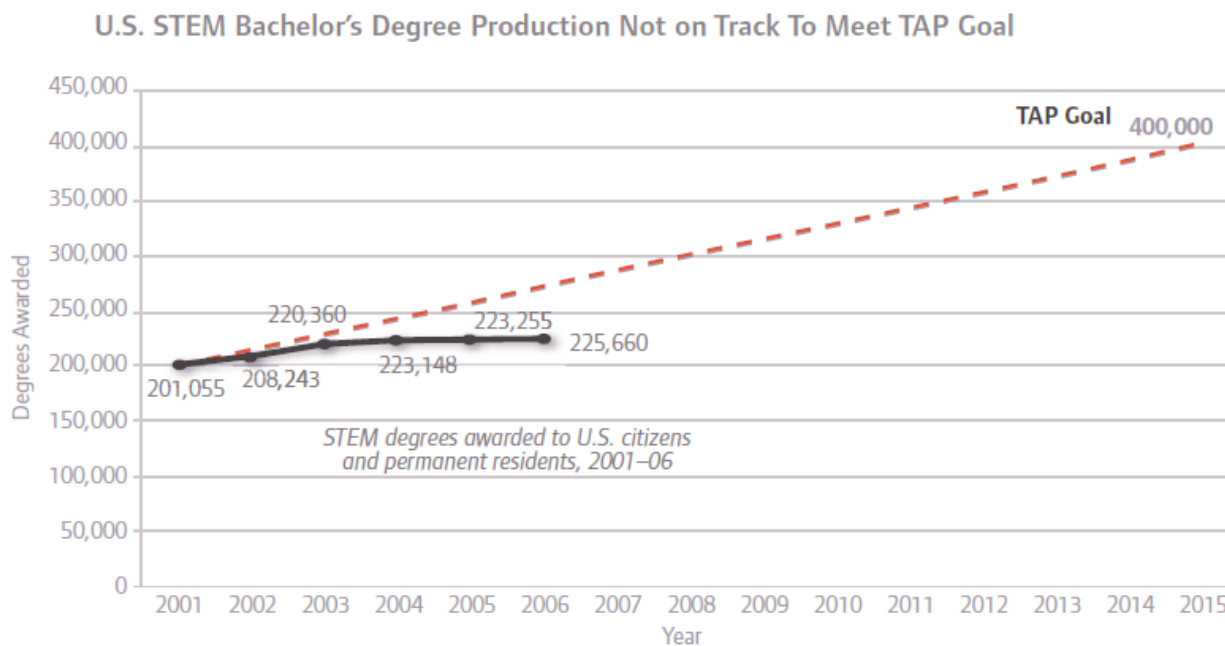
Education majors focusing on STEM related fields are also in decline. Overall enrollment dropped by 16.7% between AY 2005 and AY 2009.<sup>14</sup>

The following five STEM majors went from a few majors enrolled to zero in the course of only four years:<sup>15</sup>

<b>CIP CODE</b>	<b>CIP TITLE</b>	<b>Enrollment (High AY2004-07)</b>	<b>Enrollment (Low AY2008-09)</b>
26.1307	Conservation Biology	112	0
26.0503	Medical Microbiology and Bacteriology	63	0
26.0701	Zoology/Animal Biology	23	0
15.0404	Instrumentation Technology/Technician	19	0
15.1306	Mechanical Drafting (CAD/CADD)	18	0

National trends are only slightly better, but not on target with expectations (see Table 10). A coalition formed in 2005 known as Tapping America’s Potential (TAP) came out with an ambitious goal of doubling STEM bachelor’s-level graduates by 2015. In their 2008 progress report, they found that the 200,000 number of graduates had only slightly increased.<sup>16</sup>

Table 10



Source: National Science Foundation.

<sup>13</sup> See Attachment F.

<sup>14</sup> See Attachment H.

<sup>15</sup> See Attachment F.

<sup>16</sup> “Gaining Momentum, Losing Ground”. Progress Report, 2008. Business Roundtable, Washington, DC.

According to a 2005 GAO report, the national number of STEM enrollments increased by 21% from AY1995 to AY2004, and total number of STEM graduates increased by 8% during that same time period.<sup>17</sup>

## **Summary & Recommendations**

In Arkansas, STEM enrollments have increased over the past five years. However, STEM graduation rates have either remained steady or decreased over the course of a five year period. This should represent a significant concern for higher education officials and faculty – that efforts are working to improve the number of students seeking STEM credentials from an input perspective (more majors). But looking at the issue from an output perspective (graduates), the outlook is worsening.

In order to reverse the current trend of fewer graduates, STEM institutions should consider establishing support mechanisms, such as:

1. Residential STEM communities or STEM dorms;
2. Special access to tutors;
3. Customized or special new student orientations for STEM students; and/or
4. STEM student organizations and/or social organizations;
5. Develop targeted scholarships for juniors and/or seniors in STEM fields;
6. Develop business/education internships for STEM students.

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<sup>17</sup> U.S. Government Accountability Office (2005). “Higher Education. Federal Science, Technology, Engineering, and Mathematics Programs and Related Trends”. Report to the Chairman, Committee on Rules, House of Representatives.



## List of Attachments

Attachment A	STEM Graduates from AY 2004 – 2008 (by CIP Category)
Attachment B	STEM Graduates from AY 2004 – 2008 (by Institution)
Attachment C	STEM Graduates by CIP Code
Attachment D	STEM Student Majors by Year/Classification
Attachment E	STEM Student Majors by Year (Gender and Race/Ethnicity)
Attachment F	STEM Designated Degree Programs (Students with STEM Majors, Fall Enrollment Headcount)
Attachment G	STEM Designated Degree Programs (STEM List: Numerical Order)
Attachment H	Education Majors in STEM Fields (AY 2005 – AY 2009)
Attachment I	STEM Graduate Rates as a Percent of Total Arkansas Graduation Rates

Arkansas Public Higher Education Institutions			
Abbr.	Name (4-Year Universities)	Abbr.	Name (2-Year Colleges)
ASUJ	Arkansas State University - Jonesboro	ASUB	Arkansas State University - Beebe
ATU	Arkansas Tech University	ANC	Arkansas Northeastern College
HSU	Henderson State University	ASUMH	Arkansas State University - Mountain Home
SAUM	Southern Arkansas University - Magnolia	ASUN	Arkansas State University - Newport
UAF	University of Arkansas Fayetteville	CCCUA	Cossatot Community College of the UA
UAFS	University of Arkansas - Fort Smith	EACC	East Arkansas Community College
UALR	University of Arkansas at Little Rock	MSCC	Mid-South Community College
UAM	University of Arkansas at Monticello	NAC	North Arkansas College
UAMS	University of Arkansas for Medical Sciences	NPCC	National Park Community College
UAPB	University of Arkansas at Pine Bluff	NWACC	Northwest Arkansas Community College
UCA	University of Central Arkansas	PCCUA	Phillips Community College /UA
		RMCC	Rich Mountain Community College
		SACC	South Arkansas Community College
		UACCB	UA Community College at Batesville
		UACCH	UA Community College at Hope
		UACCM	UA Community College at Morrilton
		BRTC	Black River Technical College
		OTC	Ouachita Technical College
		OZC	Ozarka College
		PTC	Pulaski Technical College
		SAUT	Southern Arkansas University - Tech
		SEAC	Southeast Arkansas College

## STEM Graduates from Academic Years 2004 - 2008

Academic Year/ STEM Field	Graduates/Credentials Awards					TOTAL	Growth		Percent of All STEM Graduates
	AY2004	AY2005	AY2006	AY2007	AY2008		Number	Percent	
<b>CIP Category = 11: Computer and Information Sciences and Support Services</b>									
Associates Degree and Lower	235	264	253	194	157	1,103	(78)	-33.2%	10.3%
Baccalaureate Only	335	278	216	205	185	1,219	(150)	-44.8%	11.4%
Masters Level & Related	85	60	77	68	88	378	3	3.5%	3.5%
Doctoral Level & Related	-	2	3	1	2	8	2		0.1%
Sub-Total	655	604	549	468	432	2,708	(223)	-34.0%	25.3%
<b>CIP Category = 14: Engineering</b>									
Associates Degree and Lower	-								
Baccalaureate Only	302	304	290	317	291	1,504	(11)	-3.6%	14.0%
Masters Level & Related	78	76	78	72	84	388	6	7.7%	3.6%
Doctoral Level & Related	17	17	13	15	14	76	(3)	-17.6%	0.7%
Sub-Total	397	397	381	404	389	1,968	(8)	-2.0%	18.4%
<b>CIP Category = 15: Engineering Technologies/Technicians</b>									
Associates Degree and Lower	327	263	314	332	554	1,790	227	69.4%	16.7%
Baccalaureate Only	73	60	80	86	84	383	11	15.1%	3.6%
Masters Level & Related	-								
Doctoral Level & Related	-								
Sub-Total	400	323	394	418	638	2,173	238	59.5%	20.3%
<b>CIP Category = 26: Biological and Biomedical Sciences</b>									
Associates Degree and Lower	-	2	-	1	-	3	-		0.0%
Baccalaureate Only	362	395	382	379	427	1,945	65	18.0%	18.1%
Masters Level & Related	31	49	51	56	46	233	15	48.4%	2.2%
Doctoral Level & Related	16	25	27	20	35	123	19	118.8%	1.1%
Sub-Total	409	471	460	456	508	2,304	99	24.2%	21.5%
<b>CIP Category = 27: Mathematics and Statistics</b>									
Associates Degree and Lower									
Baccalaureate Only	76	94	90	95	61	416	(15)	-19.7%	3.9%
Masters Level & Related	23	32	44	27	42	168	19	82.6%	1.6%
Doctoral Level & Related	3	3		2	2	10	(1)	-33.3%	0.1%
Sub-Total	102	129	134	124	105	594	3	2.9%	5.5%
<b>CIP Category = 40: Physical Sciences</b>									
Associates Degree and Lower									
Baccalaureate Only	129	151	128	157	173	738	44	34.1%	6.9%
Masters Level & Related	26	28	18	35	31	138	5	19.2%	1.3%
Doctoral Level & Related	11	21	21	12	28	93	17	154.5%	0.9%
Sub-Total	166	200	167	204	232	969	66	39.8%	9.0%
<b>CIP Category = 29: Military Technologies</b>									
Associates Degree and Lower					1	1			
Baccalaureate Only						-	-	#DIV/0!	0.0%
Masters Level & Related						-	-	#DIV/0!	0.0%
Doctoral Level & Related						-	-	#DIV/0!	0.0%
Sub-Total	-	-	-	-	1	1	1	#DIV/0!	0.0%
<b>TOTALS</b>									
Associates Degree and Lower	562	529	567	527	712	2,896	150	26.7%	27.0%
Baccalaureate Only	1,277	1,282	1,186	1,239	1,221	6,205	(56)	-4.4%	57.9%
Masters Level & Related	243	245	268	258	291	1,305	48	19.8%	12.2%
Doctoral Level & Related	47	68	64	50	81	311	34	72.3%	2.9%
Totals	2,129	2,124	2,085	2,074	2,305	10,717	176	8.3%	100.0%

## STEM Graduates from Academic Years 2004 - 2008

Inst. Type	Institution	Associate Level (Degree Levels 01 - 04)						Growth	
		AY2004	AY2005	AY2006	AY2007	AY2008	TOTAL	Number	Percent
4-Year	ASUJ	5	4	2	17	7	35	2	40.0%
4-Year	ATU	31	30	38	27	14	140	(17)	-54.8%
4-Year	HSU						-	-	
4-Year	SAUM			1			1	-	
4-Year	UAF						-	-	
4-Year	UAFS	114	101	102	73	72	462	(42)	-36.8%
4-Year	UALR	12	11	3	9	9	44	(3)	-25.0%
4-Year	UAM	6	12	22	16	16	72	10	166.7%
4-Year	UAMS						-	-	
4-Year	UAPB						-	-	
4-Year	UCA						-	-	
2-Year	ANC	14	13	3	4	4	38	(10)	-71.4%
2-Year	ASUB	36	48	34	30	149	297	113	313.9%
2-Year	ASUMH	56	21	25	25	18	145	(38)	-67.9%
2-Year	ASUN	4	1	3	2	1	11	(3)	-75.0%
2-Year	BRTC						-	-	
2-Year	CCCUA	9	4	4	4	7	28	(2)	-22.2%
2-Year	EACC	5	13	19	15	62	114	57	1140.0%
2-Year	MSCC	20	18	31	13	12	94	(8)	-40.0%
2-Year	NAC	31	24	38	43	20	156	(11)	-35.5%
2-Year	NPCC	1	1			3	5	2	200.0%
2-Year	NWACC	36	32	19	22	41	150	5	13.9%
2-Year	OTC	29	50	17	24	9	129	(20)	-69.0%
2-Year	OZC	2	2	1	1		6	(2)	-100.0%
2-Year	PCCUA	34	48	95	40	32	249	(2)	-5.9%
2-Year	PTC	17	14	27	12	31	101	14	82.4%
2-Year	RMCC	15	6	2	8	2	33	(13)	-86.7%
2-Year	SACC	1	3				4	(1)	-100.0%
2-Year	SAUT	26	29	19	18	41	133	15	57.7%
2-Year	SEAC	27	18	19	42	31	137	4	14.8%
2-Year	UACCB						-	-	
2-Year	UACCH					5	5	5	
2-Year	UACCM	31	26	43	82	126	308	95	306.5%
<b>TOTAL</b>		<b>562</b>	<b>529</b>	<b>567</b>	<b>527</b>	<b>712</b>	<b>2,897</b>	<b>150</b>	<b>26.7%</b>
4-Year Colleges		168	158	168	142	118	754	(50)	-29.8%
2-Year Colleges		394	371	399	385	594	2,143	200	50.8%
4-Year College %		29.9%	29.9%	29.6%	26.9%	16.6%	26.0%	-33.3%	
2-Year College %		70.1%	70.1%	70.4%	73.1%	83.4%	74.0%	133.3%	
State Totals		8,510	9,382	10,076	10,713	11,827	50,508	3,317	39.0%
As Percent of State Total		6.6%	5.6%	5.6%	4.9%	6.0%	5.7%		-0.6%

## STEM Graduates from Academic Years 2004 - 2008

		Baccalaureate Only (Degree Level 05)						Growth	
Inst. Type	Institution	AY2004	AY2005	AY2006	AY2007	AY2008	TOTAL	Change	Percent
4-Year	ASUJ	190	221	183	127	140	861	-50	-35.7%
4-Year	ATU	144	136	143	135	118	676	-26	-22.0%
4-Year	HSU	46	37	33	34	42	192	-4	-9.5%
4-Year	SAUM	54	45	36	27	46	208	-8	-17.4%
4-Year	UAF	498	476	426	477	441	2,318	-57	-12.9%
4-Year	UAFS	19	23	31	60	40	173	21	52.5%
4-Year	UALR	151	155	146	168	164	784	13	7.9%
4-Year	UAM	19	26	27	23	26	121	7	26.9%
4-Year	UAPB	43	57	59	49	58	266	15	25.9%
4-Year	UCA	113	106	102	139	146	606	33	22.6%
<b>TOTAL</b>		<b>1,277</b>	<b>1,282</b>	<b>1,186</b>	<b>1,239</b>	<b>1,221</b>	<b>6,205</b>	<b>-56</b>	<b>-4.6%</b>
State Totals		8,536	8,843	8,935	9,189	9,306	44,809	770	9.0%
As Percent of State Total		15.0%	14.5%	13.3%	13.5%	13.1%	13.8%		-1.8%

		Specialist and Masters Level (Degree Levels 06, 07, 08)						Growth	
Inst. Type	Institution	AY2004	AY2005	AY2006	AY2007	AY2008	TOTAL	Change	Percent
4-Year	ASUJ	21	21	18	19	20	99	(1)	-4.8%
4-Year	ATU	44	19	33	28	32	156	(12)	-27.3%
4-Year	SAUM					2	2	2	
4-Year	UAF	142	140	164	165	170	781	28	19.7%
4-Year	UALR	21	37	24	22	37	141	16	76.2%
4-Year	UAMS	3	10	7	8	10	38	7	233.3%
4-Year	UCA	12	18	22	16	20	88	8	66.7%
<b>TOTAL</b>		<b>243</b>	<b>245</b>	<b>268</b>	<b>258</b>	<b>291</b>	<b>1,305</b>	<b>48</b>	<b>19.8%</b>
State Totals		2,431	2,629	2,729	2,863	3,105	13,757	674	27.7%
As Percent of State Total		10.0%	9.3%	9.8%	9.0%	9.4%	9.5%		-0.6%

		Doctoral and related (Degree Levels 09 - 12)						Growth	
Inst. Type	Institution	AY2004	AY2005	AY2006	AY2007	AY2008	TOTAL	Change	Percent
4-Year	UAF	35	47	41	28	47	198	12	34.3%
4-Year	UALR	2	11	5	8	13	39	11	550.0%
4-Year	UAMS	10	10	18	14	20	72	10	100.0%
<b>TOTAL</b>		<b>47</b>	<b>68</b>	<b>64</b>	<b>50</b>	<b>80</b>	<b>309</b>	<b>33</b>	<b>70.2%</b>
State Totals		685	754	735	718	741	3,633	56	8.2%
As Percent of State Total		6.9%	9.0%	8.7%	7.0%	10.8%	8.5%		3.9%

# STEM Designated Degree Programs

Effective date: April 8, 2008; Updated September 25, 2008

The following is a list of Classification of Instructional Programs codes published by the National Center for Education Statistics (NCES CIP codes) that have been designated by ICE as science, technology, engineering, or math (STEM) degrees for the purpose of the 17-month extension. In order for F-1 students to qualify for this 17-month extension, the code for the student's degree program must be on this list. Other requirements are found in the regulatory language.

## STEM List: Numerical Order

CIP Code	Numeric Order CIP Code Title	AY2004	AY2005	AY2006	AY2007	AY2008	TOTAL	% of TOTAL	HIGH	LOW	AVG	% CHANGE
11.0101	Computer and Information Sciences, General	289	244	224	214	194	1165	10.9%	289	194	233.0	-32.9%
11.0102	Artificial Intelligence and Robotics.	0	1	4	2	0	7	0.1%	4	0	1.4	0.0%
11.0103	Information Technology.	48	24	33	26	42	173	1.6%	48	24	34.6	-12.5%
11.0201	Computer Programming/Programmer, General	2	3	2	3	3	13	0.1%	3	2	2.6	50.0%
11.0202	Computer Programming, Specific Applications	1	7	1	1	1	11	0.1%	7	1	2.2	0.0%
11.0203	Computer Programming, Vendor/Product Specific	9	3	4	4	7	27	0.3%	9	3	5.4	-22.2%
11.0301	Data Processing and Data Processing Technology	144	152	100	59	52	507	4.7%	152	52	101.4	-63.9%
11.0401	Information Science/Studies.	48	27	23	38	19	155	1.4%	48	19	31.0	-60.4%
11.0501	Computer Systems Analysis/Analyst.	22	19	29	29	28	127	1.2%	29	19	25.4	27.3%
11.0701	Computer Science.	12	15	17	11	20	75	0.7%	20	11	15.0	66.7%
11.0801	Web Page, Digital/Multimedia and Information	0	0	1	2	1	4	0.0%	2	0	0.8	100.0%
11.0802	Data Modeling/Warehousing and Database Administration.											
11.0803	Computer Graphics.											
11.0901	Computer Systems Networking and Telecommunications	71	103	96	73	56	399	3.7%	103	56	79.8	-21.1%
11.1001	System Administration/Administrator.	0	3	6	1	0	10	0.1%	6	0	2.0	0.0%
11.1002	System, Networking, and LAN/WAN Management	4	1	0	0	6	11	0.1%	6	0	2.2	50.0%
11.1003	Computer and Information Systems Security	0	0	0	0	1	1	0.0%	1	0	0.2	100.0%
11.1004	Web/Multimedia Management and Webmaster	5	2	9	5	2	23	0.2%	9	2	4.6	-60.0%
14.0101	Engineering, General.	57	75	48	46	48	274	2.6%	75	46	54.8	-15.8%
14.0201	Aerospace, Aeronautical and Astronautical Engineering.											
14.0301	Agricultural/Biological Engineering and Biomedical Engineering.	8	12		19	22	83	0.8%	22	8	16.6	175.0%
14.0401	Architectural Engineering.											
14.0501	Biomedical/Medical Engineering.											
14.0601	Ceramic Sciences and Engineering.											
14.0701	Chemical Engineering.	29	32	29	30	36	156	1.5%	36	29	31.2	24.1%
14.0801	Civil Engineering, General.	56	45	40	43	47	231	2.2%	56	40	46.2	-16.1%
14.0802	Geotechnical Engineering.											
14.0803	Structural Engineering.											
14.0804	Transportation and Highway Engineering.	1	0	1	0	0	2	0.0%	1	0	0.4	-100.0%
14.0805	Water Resources Engineering.											
14.0901	Computer Engineering, General.	54	39	34	32	22	181	1.7%	54	22	36.2	-59.3%
14.0902	Computer Hardware Engineering.											
14.0903	Computer Software Engineering.											
14.1001	Electrical, Electronics and Communications Engineering	61	64	70	70	71	336	3.1%	71	61	67.2	16.4%
14.1101	Engineering Mechanics.											
14.1201	Engineering Physics.	1	0	0	0	1	2	0.0%	1	0	0.4	0.0%
14.1301	Engineering Science.											
14.1401	Environmental/Environmental Health Engineering	2	0	1	4	5	12	0.1%	5	0	2.4	150.0%
14.1801	Materials Engineering.											
14.1901	Mechanical Engineering.	74	72	77	95	82	400	3.7%	95	72	80.0	10.8%
14.2001	Metallurgical Engineering.											
14.2101	Mining and Mineral Engineering.											
14.2201	Naval Architecture and Marine Engineering.											
14.2301	Nuclear Engineering.											
14.2401	Ocean Engineering.											
14.2501	Petroleum Engineering.											
14.2701	Systems Engineering.	4	9	5	7	6	31	0.3%	9	4	6.2	50.0%
14.2801	Textile Sciences and Engineering.											
14.3101	Materials Science.											
14.3201	Polymer/Plastics Engineering.											
14.3301	Construction Engineering.											
14.3401	Forest Engineering.											
14.3501	Industrial Engineering.	50	49	57	55	49	260	2.4%	57	49	52.0	-2.0%
14.3601	Manufacturing Engineering.											
14.3701	Operations Research.											
14.3801	Surveying Engineering.											
14.3901	Geological/Geophysical Engineering.											
15.0000	Engineering Technology, General.											
15.0101	Architectural Engineering Technology/Technician.											
15.0201	Civil Engineering Technology/Technician.											
15.0303	Electrical, Electronic and Communications Engineering Technology/Technician.	47	23	7	31	69	177	1.7%	69	7	35.4	46.8%
15.0304	Laser and Optical Technology/Technician.											
15.0305	Telecommunications Technology/Technician.											
15.0401	Biomedical Technology/Technician.	4	3	5	2	1	15	0.1%	5	1	3.0	-75.0%
15.0403	Electromechanical Technology/Electromechanical	2	3	6	4	3	18	0.2%	6	2	3.6	50.0%
15.0404	Instrumentation Technology/Technician.	0	0	0	1	1	2	0.0%	1	0	0.4	100.0%
15.0405	Robotics Technology/Technician.											

## STEM List: Numerical Order

CIP Code	Numeric Order CIP Code Title	AY2004	AY2005	AY2006	AY2007	AY2008	TOTAL	% of TOTAL	HIGH	LOW	AVG	% CHANGE
15.0501	Heating, Air Conditioning and Refrigeration Technology/Technician (ACH/ACR/ACHR/HRAC/HVAC/AC Technology).											
15.0503	Energy Management and Systems Technology/Technician.											
15.0505	Solar Energy Technology/Technician.											
15.0506	Water Quality and Wastewater Treatment Technology/Technician.	0	0	0	4	0	4	0.0%	4	0	0.8	0.0%
15.0507	Environmental Engineering Technology/Technician.	29	15	9	8	16	77	0.7%	29	8	15.4	-44.8%
15.0508	Hazardous Materials Management and Waste Management Technology/Technician.	0	0	0	0	6	6	0.1%	6	0	1.2	100.0%
15.0607	Plastics Engineering Technology/Technician.											
15.0611	Metallurgical Technology/Technician.	4	1	1	3	3	12	0.1%	4	1	2.4	-25.0%
15.0612	Industrial Technology/Technician.	46	43	77	42	38	246	2.3%	77	38	49.2	-17.4%
15.0613	Manufacturing Technology/Technician.	3	2	5	3	4	17	0.2%	5	2	3.4	33.3%
15.0701	Occupational Safety and Health Technology/Technician.											
15.0702	Quality Control Technology/Technician.	0	0	0	1	1	2	0.0%	1	0	0.4	100.0%
15.0703	Industrial Safety Technology/Technician.											
15.0704	Hazardous Materials Information Systems Technology/Technician.											
15.0801	Aeronautical/Aerospace Engineering Technology/Technician.											
15.0803	Automotive Engineering Technology/Technician.											
15.0805	Mechanical Engineering/Mechanical Technician.	19	10	9	14	9	61	0.6%	19	9	12.2	-52.6%
15.0901	Mining Technology/Technician.											
15.0903	Petroleum Technology/Technician.	0	0	0	21	73	94	0.9%	73	0	18.8	100.0%
15.1001	Construction Engineering Technology/Technician.	26	17	26	35	42	146	1.4%	42	17	29.2	61.5%
15.1102	Surveying Technology/Surveying.	21	23	45	47	37	173	1.6%	47	21	34.6	76.2%
15.1103	Hydraulics and Fluid Power Technology/Technician.											
15.1201	Computer Engineering Technology/Technician.	5	7	9	10	2	33	0.3%	10	2	6.6	-60.0%
15.1202	Computer Technology/Computer Systems Technician.	53	57	48	54	162	374	3.5%	162	48	74.8	205.7%
15.1203	Computer Hardware Technology/Technician.											
15.1204	Computer Software Technology/Technician.											
15.1301	Drafting and Design Technology/Technician.	125	95	120	117	83	540	5.0%	125	83	108.0	-33.6%
15.1302	CAD/CADD Drafting and/or Design Technology/Technician.	0	0	8	10	77	95	0.9%	77	0	19.0	100.0%
15.1303	Architectural Drafting and Architectural CAD/CADD.											
15.1304	Civil Drafting and Civil Engineering CAD/CADD.											
15.1305	Electrical/Electronics Drafting and Electrical/Electronics CAD/CADD.											
15.1306	Mechanical Drafting and Mechanical Drafting Technology/Technician.	5	9	0	0	0	14	0.1%	9	0	2.8	-100.0%
15.1401	Nuclear Engineering Technology/Technician.	11	15	19	11	11	67	0.6%	19	11	13.4	0.0%
15.1501	Engineering/Industrial Management.											
26.0101	Biology/Biological Sciences, General.	337	379	377	393	454	1940	18.1%	454	337	388.0	34.7%
26.0102	Biomedical Sciences, General.											
26.0202	Biochemistry.	4	3	5	2	1	15	0.1%	5	1	3.0	-75.0%
26.0203	Biophysics.											
26.0204	Molecular Biology.											
26.0205	Molecular Biochemistry.											
26.0206	Molecular Biophysics.											
26.0207	Structural Biology.											
26.0208	Photobiology.											
26.0209	Radiation Biology/Radiobiology.											
26.021	Biochemistry/Biophysics and Molecular Biology.											
26.0301	Botany/Plant Biology.	1	0	1	0	0	2	0.0%	1	0	0.4	-100.0%
26.0305	Plant Pathology/Phytopathology.	1	1	3	6	5	16	0.1%	6	1	3.2	400.0%
26.0307	Plant Physiology.											
26.0308	Plant Molecular Biology.											
26.0401	Cell/Cellular Biology and Histology.											
26.0403	Anatomy.	1	4	5	6	6	22	0.2%	6	1	4.4	500.0%
26.0404	Developmental Biology and Embryology.											
26.0405	Neuroanatomy.											
26.0406	Cell/Cellular and Molecular Biology.	0	13	13	8	12	46	0.4%	13	0	9.2	100.0%
26.0407	Cell Biology and Anatomy.											
26.0502	Microbiology, General.											
26.0503	Medical Microbiology and Bacteriology.	28	19	11	6	8	72	0.7%	28	6	14.4	-71.4%
26.0504	Virology.											
26.0505	Parasitology.											
26.0506	Mycology.											
26.0507	Immunology.											
26.0701	Zoology/Animal Biology.	13	8	1	0	0	22	0.2%	13	0	4.4	-100.0%
26.0702	Entomology.	3	8	4	7	3	25	0.2%	8	3	5.0	0.0%
26.0707	Animal Physiology.	2	8	7	7	8	32	0.3%	8	2	6.4	300.0%
26.0708	Animal Behavior and Ethology.											
26.0709	Wildlife Biology.											
26.0801	Genetics, General.											
26.0802	Molecular Genetics.											
26.0803	Microbial and Eukaryotic Genetics.											
26.0804	Animal Genetics.											
26.0805	Plant Genetics.											
26.0806	Human/Medical Genetics.	0	0	0	0	1	1	0.0%	1	0	0.2	100.0%
26.0901	Physiology, General.											
26.0902	Molecular Physiology.											
26.0903	Cell Physiology.											
26.0904	Endocrinology.											
26.0905	Reproductive Biology.											

## STEM List: Numerical Order

CIP Code	Numeric Order CIP Code Title	AY2004	AY2005	AY2006	AY2007	AY2008	TOTAL	% of TOTAL	HIGH	LOW	AVG	% CHANGE
26.0906	Neurobiology and Neurophysiology.											
26.0907	Cardiovascular Science.											
26.0908	Exercise Physiology.											
26.0909	Vision Science/Physiological Optics.											
26.091	Pathology/Experimental Pathology.											
26.0911	Oncology and Cancer Biology.											
26.1001	Pharmacology.	1	2	2	1	4	10	0.1%	4	1	2.0	300.0%
26.1002	Molecular Pharmacology.											
26.1003	Neuropharmacology.											
26.1004	Toxicology.	3	2	3	4	3	15	0.1%	4	2	3.0	0.0%
26.1005	Molecular Toxicology.											
26.1006	Environmental Toxicology.											
26.1007	Pharmacology and Toxicology.											
26.1101	Biometry/Biometrics.											
26.1102	Biostatistics.											
26.1103	Bioinformatics.	0	4	0	3	3	10	0.1%	4	0	2.0	100.0%
26.1201	Biotechnology.	0	2	0	1	0	3	0.0%	2	0	0.6	0.0%
26.1301	Ecology.											
26.1302	Marine Biology and Biological Oceanography.											
26.1303	Evolutionary Biology.											
26.1304	Aquatic Biology/Limnology.											
26.1305	Environmental Biology.											
26.1306	Population Biology.											
26.1307	Conservation Biology.	15	18	28	12	0	73	0.7%	28	0	14.6	-100.0%
26.1308	Systematic Biology/Biological Systematics.											
26.1309	Epidemiology.											
27.0101	Mathematics, General.	92	117	120	112	88	529	4.9%	120	88	105.8	-4.3%
27.0102	Algebra and Number Theory.											
27.0103	Analysis and Functional Analysis.											
27.0104	Geometry/Geometric Analysis.											
27.0105	Topology and Foundations.											
27.0301	Applied Mathematics.	3	6	7	5	12	33	0.3%	12	3	6.6	300.0%
27.0303	Computational Mathematics.											
27.0501	Statistics, General.	7	6	7	7	5	32	0.3%	7	5	6.4	-28.6%
27.0502	Mathematical Statistics and Probability.											
29.0101	Military Technologies.	0	0	0	0	1	1	0.0%	1	0	0.2	100.0%
40.0101	Physical Sciences.	6	18	10	12	17	63	0.6%	18	6	12.6	183.3%
40.0201	Astronomy.											
40.0202	Astrophysics.											
40.0203	Planetary Astronomy and Science.	0	0	2	0	1	3	0.0%	2	0	0.6	100.0%
40.0401	Atmospheric Sciences and Meteorology, General.											
40.0402	Atmospheric Chemistry and Climatology.											
40.0403	Atmospheric Physics and Dynamics.											
40.0404	Meteorology.											
40.0501	Chemistry, General.	89	123	93	109	127	541	5.0%	127	89	108.2	42.7%
40.0502	Analytical Chemistry.											
40.0503	Inorganic Chemistry.											
40.0504	Organic Chemistry.											
40.0506	Physical and Theoretical Chemistry.											
40.0507	Polymer Chemistry.											
40.0508	Chemical Physics.											
40.0601	Geology/Earth Science, General.	30	25	25	35	40	155	1.4%	40	25	31.0	33.3%
40.0602	Geochemistry.											
40.0603	Geophysics and Seismology.											
40.0604	Paleontology.											
40.0605	Hydrology and Water Resources Science.											
40.0606	Geochemistry and Petrology.											
40.0607	Oceanography, Chemical and Physical.											
40.0801	Physics, General.	41	34	37	48	47	207	1.9%	48	34	41.4	14.6%
40.0802	Atomic/Molecular Physics.											
40.0804	Elementary Particle Physics.											
40.0805	Plasma and High-Temperature Physics.											
40.0806	Nuclear Physics.											
40.0807	Optics/Optical Sciences.											
40.0808	Solid State and Low-Temperature Physics.											
40.0809	Acoustics.											
40.0810	Theoretical and Mathematical Physics.											
41.0101	Biology Technician/Biotechnology Laboratory Technician.											
41.0204	Industrial Radiologic Technology/Technician.											
41.0205	Nuclear/Nuclear Power Technology/Technician.											
41.0301	Chemical Technology/Technician.											
51.1401	Medical Scientist (MS, PhD).											
52.1304	Actuarial Science											
<b>TOTAL</b>		<b>2,129</b>	<b>2,124</b>	<b>2,085</b>	<b>2,074</b>	<b>2,305</b>	<b>10,717</b>					<b>8.3%</b>

## STEM Student Majors by Year (Fall Term Only)

Term (Academic Year)	Students	Unclassified UG*	Percent	Freshmen	Percent	Sophomore	Percent	Junior	Percent	Senior	Percent
2008 Fall (2009)	10,288	46	0.4%	3,656	35.5%	2,411	23.4%	1,793	17.4%	2,382	23.2%
2007 Fall (2008)	9,808	76	0.8%	3,428	35.0%	2,295	23.4%	1,675	17.1%	2,334	23.8%
2006 Fall (2007)	9,382	62	0.7%	3,436	36.6%	2,110	22.5%	1,528	16.3%	2,246	23.9%
2005 Fall (2006)	9,262	44	0.5%	3,260	35.2%	2,190	23.6%	1,570	17.0%	2,198	23.7%
2004 Fall (2005)	9,247	28	0.3%	3,257	35.2%	2,196	23.7%	1,469	15.9%	2,297	24.8%
2003 Fall (2004)	9,745	82	0.8%	3,475	35.7%	2,085	21.4%	1,723	17.7%	2,380	24.4%
TOTAL	57,732	338	0.6%	20,512	35.5%	13,287	23.0%	9,758	16.9%	13,837	24.0%
PERCENT	100.0%	0.6%	0.6%	35.5%	35.5%	23.0%	23.0%	16.9%	16.9%	24.0%	24.0%
AVERAGE	9,622	56	0.6%	3,419	35.5%	2,215	23.0%	1,626	16.9%	2,306	24.0%
GROWTH	5.6%	-43.9%		5.2%		15.6%		4.1%		0.1%	

\*NOTE:

UG stands for undergraduate



**STEM Student Majors by Year (Fall Term Only)**  
**Headcount including Gender and Race/Ethnicity**

Term (Academic Year)	Students	Gender		Race.Ethnicity						
		Male	Female	Asian/PI	Black	Hispanic	AI/AN	White	NRA	Unknown
2008 Fall (2009)	10,288	7,077	3,394	341	1,615	288	137	7,605	311	174
2007 Fall (2008)	9,808	6,491	3,503	306	1,517	262	147	7,304	286	172
2006 Fall (2007)	9,382	6,396	3,144	289	1,396	186	125	7,135	263	146
2005 Fall (2006)	9,262	6,322	3,072	257	1,425	164	117	7,028	247	156
2004 Fall (2005)	9,247	6,246	3,102	240	1,482	153	131	6,950	267	125
2003 Fall (2004)	9,745	6,712	3,205	253	1,486	159	118	7,437	364	100
TOTAL	57,732	39,244	19,420	1,686	8,921	1,212	775	43,459	1,738	873
PERCENT	100.0%	68.0%	33.6%	2.9%	15.5%	2.1%	1.3%	75.3%	3.0%	1.5%
AVERAGE	9,622	6,541	3,237	281	1,487	202	129	7,243	290	146
GROWTH	5.6%	5.4%	5.9%	34.8%	8.7%	81.1%	16.1%	2.3%	-14.6%	74.0%

\*NOTE:

Asian/PI = Asian or Pacific Islander

AI/AN = American Indian or Alaskan Native

NRA = Non-Resident Alien

## STEM Designated Degree Programs

Effective date: April 8, 2008; Updated September 25, 2008

The following is a list of Classification of Instructional Programs codes published by the National Center for Education Statistics (NCES CIP codes) that have been designated by ICE as science, technology, engineering, or math (STEM).

In order for F-1 students to qualify for this 17-month extension, the code for the student's degree program must be on this list. Other requirements are found in the regulatory language.

### STEM List: Numerical Order

CIP Code	Numeric Order CIP Code Title	AY2004	AY2005	AY2006	AY2007	AY2008	HIGH	LOW	TOTAL	% of TOTAL	AVG	% CHANGE
11.0101	Computer and Information Sciences, General.	1861	1639	1415	1332	1358	1861	1332	7605	16.0%	1521	-27.0%
11.0102	Artificial Intelligence and Robotics.	0	0	1	0	0	1	0	1	0.0%	0.2	0.0%
11.0103	Information Technology.	14	14	8	38	82	82	8	156	0.3%	31.2	485.7%
11.0201	Computer Programming/Programmer, General.	0	1	1	2	5	5	0	9	0.0%	1.8	100.0%
11.0202	Computer Programming, Specific Applications.	1	0	0	1	0	1	0	2	0.0%	0.4	-100.0%
11.0203	Computer Programming, Vendor/Product Certification.	1	0	0	2	1	2	0	4	0.0%	0.8	0.0%
11.0301	Data Processing and Data Processing Technology/Technician.	522	403	296	238	251	522	238	1710	3.6%	342	-51.9%
11.0401	Information Science/Studies.	163	160	161	134	147	163	134	765	1.6%	153	-9.8%
11.0501	Computer Systems Analysis/Analyst.	24	40	80	84	77	84	24	305	0.6%	61	220.8%
11.0701	Computer Science.	44	52	32	35	48	52	32	211	0.4%	42.2	9.1%
11.0801	Web Page, Digital/Multimedia and Information Resources Design.	1	1	0	1	2	2	0	5	0.0%	1	100.0%
11.0802	Data Modeling/Warehousing and Database Administration.											
11.0803	Computer Graphics.											
11.0901	Computer Systems Networking and Telecommunications.	231	174	134	110	112	231	110	761	1.6%	152.2	-51.5%
11.1001	System Administration/Administrator.	0	0	0	1	0	1	0	1	0.0%	0.2	0.0%
11.1002	System, Networking, and LAN/WAN Management/Manager.	6	5	1	5	1	6	1	18	0.0%	3.6	-83.3%
11.1003	Computer and Information Systems Security.	0	0	0	3	3	3	0	6	0.0%	1.2	100.0%
11.1004	Web/Multimedia Management and Webmaster.	4	3	1	5	2	5	1	15	0.0%	3	-50.0%
14.0101	Engineering, General.	308	290	279	249	260	308	249	1386	2.9%	277.2	-15.6%
14.0201	Aerospace, Aeronautical and Astronautical Engineering.											
14.0301	Agricultural/Biological Engineering and Bioengineering.	95	92	108	115	90	115	90	500	1.1%	100	-5.3%
14.0401	Architectural Engineering.											
14.0501	Biomedical/Medical Engineering.											
14.0601	Ceramic Sciences and Engineering.											
<b>14.0701</b>	<b>Chemical Engineering.</b>	181	179	185	180	176	185	176	901	1.9%	180.2	-2.8%
14.0801	Civil Engineering, General.	197	194	232	269	196	269	194	1088	2.3%	217.6	-0.5%
14.0802	Geotechnical Engineering.											
14.0803	Structural Engineering.											
14.0804	Transportation and Highway Engineering.											
14.0805	Water Resources Engineering.											
14.0901	Computer Engineering, General.	200	164	134	122	85	200	85	705	1.5%	141	-57.5%
14.0902	Computer Hardware Engineering.											
14.0903	Computer Software Engineering.											
14.1001	Electrical, Electronics and Communications Engineering.	286	303	295	280	248	303	248	1412	3.0%	282.4	-13.3%
14.1101	Engineering Mechanics.											
14.1201	Engineering Physics.	4	8	3	12	13	13	3	40	0.1%	8	225.0%
14.1301	Engineering Science.											
14.1401	Environmental/Environmental Health Engineering.											
14.1801	Materials Engineering.											
14.1901	Mechanical Engineering.	452	491	512	529	483	529	452	2467	5.2%	493.4	6.9%
14.2001	Metallurgical Engineering.											
14.2101	Mining and Mineral Engineering.											
14.2201	Naval Architecture and Marine Engineering.											
14.2301	Nuclear Engineering.											
14.2401	Ocean Engineering.											
14.2501	Petroleum Engineering.											
14.2701	Systems Engineering.	31	36	56	77	100	100	31	300	0.6%	60	222.6%
14.2801	Textile Sciences and Engineering.											
14.3101	Materials Science.											

## STEM List: Numerical Order

CIP Code	Numeric Order CIP Code Title	AY2004	AY2005	AY2006	AY2007	AY2008	HIGH	LOW	TOTAL	% of TOTAL	AVG	% CHANGE
14.3201	Polymer/Plastics Engineering.											
14.3301	Construction Engineering.											
14.3401	Forest Engineering.											
14.3501	Industrial Engineering.	232	213	180	157	120	232	120	902	1.9%	180.4	-48.3%
14.3601	Manufacturing Engineering.											
14.3701	Operations Research.											
14.3801	Surveying Engineering.											
14.3901	Geological/Geophysical Engineering.											
15.0000	Engineering Technology, General.											
15.0101	Architectural Engineering Technology/Technician.											
15.0201	Civil Engineering Technology/Technician.											
15.0303	Electrical, Electronic and Communications Engineering Technology/Technician.	107	70	40	88	95	107	40	400	0.8%	80	-11.2%
15.0304	Laser and Optical Technology/Technician.											
15.0305	Telecommunications Technology/Technician.											
15.0401	Biomedical Technology/Technician.	16	15	11	5	9	16	5	56	0.1%	11.2	-43.8%
15.0403	Electromechanical Technology/Electromechanical Engineering Technology.	7	12	14	0	1	14	0	34	0.1%	6.8	-85.7%
15.0404	Instrumentation Technology/Technician.	19	0	0	0	0	19	0	19	0.0%	3.8	-100.0%
15.0405	Robotics Technology/Technician.											
15.0501	Heating, Air Conditioning and Refrigeration Technology/Technician (ACH/ACR/ACHR/HRAC/HVAC/AC Technology).											
15.0503	Energy Management and Systems Technology/Technician.											
15.0505	Solar Energy Technology/Technician.											
15.0506	Water Quality and Wastewater Treatment Management and Recycling Technology/Technician.											
15.0507	Environmental Engineering Technology/Environmental Technology.	49	39	42	44	44	49	39	218	0.5%	43.6	-10.2%
15.0508	Hazardous Materials Management and Waste Technology/Technician.											
15.0607	Plastics Engineering Technology/Technician.											
15.0611	Metallurgical Technology/Technician.	6	9	10	9	8	10	6	42	0.1%	8.4	33.3%
15.0612	Industrial Technology/Technician.	229	222	234	207	182	234	182	1074	2.3%	214.8	-20.5%
15.0613	Manufacturing Technology/Technician.	6	25	8	7	41	41	6	87	0.2%	17.4	583.3%
15.0701	Occupational Safety and Health Technology/Technician.											
15.0702	Quality Control Technology/Technician.	3	1	1	2	5	5	1	12	0.0%	2.4	66.7%
15.0703	Industrial Safety Technology/Technician.											
15.0704	Hazardous Materials Information Systems Technology/Technician.											
15.0801	Aeronautical/Aerospace Engineering Technology/Technician.											
15.0803	Automotive Engineering Technology/Technician.											
15.0805	Mechanical Engineering/Mechanical Technology/Technician.	64	54	61	54	56	64	54	289	0.6%	57.8	-12.5%
15.0901	Mining Technology/Technician.											
15.0903	Petroleum Technology/Technician.	0	0	0	35	82	82	0	117	0.2%	23.4	100.0%
15.1001	Construction Engineering Technology/Technician.	107	143	156	178	191	191	107	775	1.6%	155	78.5%
15.1102	Surveying Technology/Surveying.	83	98	101	78	70	101	70	430	0.9%	86	-15.7%
15.1103	Hydraulics and Fluid Power Technology/Technician.											
15.1201	Computer Engineering Technology/Technician.	55	39	39	51	49	55	39	233	0.5%	46.6	-10.9%
15.1202	Computer Technology/Computer Systems Technology.	278	239	229	224	191	278	191	1161	2.4%	232.2	-31.3%
15.1203	Computer Hardware Technology/Technician.											
15.1204	Computer Software Technology/Technician.											
15.1301	Drafting and Design Technology/Technician, General.	384	343	332	340	253	384	253	1652	3.5%	330.4	-34.1%
15.1302	CAD/CADD Drafting and/or Design Technology/Technician.	0	0	9	11	129	129	0	149	0.3%	29.8	100.0%
15.1303	Architectural Drafting and Architectural CAD/CADD.											
15.1304	Civil Drafting and Civil Engineering CAD/CADD.											
15.1305	Electrical/Electronics Drafting and Electrical/Electronics CAD/CADD.											
15.1306	Mechanical Drafting and Mechanical Drafting CAD/CADD.	16	18	0	0	0	18	0	34	0.1%	6.8	-100.0%
15.1401	Nuclear Engineering Technology/Technician.	12	25	15	16	18	25	12	86	0.2%	17.2	50.0%
15.1501	Engineering/Industrial Management.											
26.0101	Biology/Biological Sciences, General.	1894	1969	2308	2450	2920	2920	1894	11541	24.3%	2308.2	54.2%
26.0102	Biomedical Sciences, General.											
26.0202	Biochemistry.											
26.0203	Biophysics.											
26.0204	Molecular Biology.											

## STEM List: Numerical Order

CIP Code	Numeric Order CIP Code Title	AY2004	AY2005	AY2006	AY2007	AY2008	HIGH	LOW	TOTAL	% of TOTAL	AVG	% CHANGE
26.0205	Molecular Biochemistry.											
26.0206	Molecular Biophysics.											
26.0207	Structural Biology.											
26.0208	Photobiology.											
26.0209	Radiation Biology/Radiobiology.											
26.0210	Biochemistry/Biophysics and Molecular Biology.											
26.0301	Botany/Plant Biology.	1	3	2	0	0	3	0	6	0.0%	1.2	-100.0%
26.0305	Plant Pathology/Phytopathology.											
26.0307	Plant Physiology.											
26.0308	Plant Molecular Biology.											
26.0401	Cell/Cellular Biology and Histology.											
26.0403	Anatomy.											
26.0404	Developmental Biology and Embryology.											
26.0405	Neuroanatomy.											
26.0406	Cell/Cellular and Molecular Biology.											
26.0407	Cell Biology and Anatomy.											
26.0502	Microbiology, General.											
26.0503	Medical Microbiology and Bacteriology.	63	29	9	0	0	63	0	101	0.2%	20.2	-100.0%
26.0504	Virology.											
26.0505	Parasitology.											
26.0506	Mycology.											
26.0507	Immunology.											
26.0701	Zoology/Animal Biology.	23	9	2	0	0	23	0	34	0.1%	6.8	-100.0%
26.0702	Entomology.											
26.0707	Animal Physiology.											
26.0708	Animal Behavior and Ethology.											
26.0709	Wildlife Biology.											
26.0801	Genetics, General.											
26.0802	Molecular Genetics.											
26.0803	Microbial and Eukaryotic Genetics.											
26.0804	Animal Genetics.											
26.0805	Plant Genetics.											
26.0806	Human/Medical Genetics.											
26.0901	Physiology, General.											
26.0902	Molecular Physiology.											
26.0903	Cell Physiology.											
26.0904	Endocrinology.											
26.0905	Reproductive Biology.											
26.0906	Neurobiology and Neurophysiology.											
26.0907	Cardiovascular Science.											
26.0908	Exercise Physiology.											
26.0909	Vision Science/Physiological Optics.											
26.0910	Pathology/Experimental Pathology.											
26.0911	Oncology and Cancer Biology.											
26.1001	Pharmacology.											
26.1002	Molecular Pharmacology.											
26.1003	Neuropharmacology.											
26.1004	Toxicology.											
26.1005	Molecular Toxicology.											
26.1006	Environmental Toxicology.											
26.1007	Pharmacology and Toxicology.											
26.1101	Biometry/Biometrics.											
26.1102	Biostatistics.											
26.1103	Bioinformatics.											
26.1201	Biotechnology.	7	6	4	4	4	7	4	25	0.1%	5	-42.9%
26.1301	Ecology.											
26.1302	Marine Biology and Biological Oceanography.											

## STEM List: Numerical Order

CIP Code	Numeric Order CIP Code Title	AY2004	AY2005	AY2006	AY2007	AY2008	HIGH	LOW	TOTAL	% of TOTAL	AVG	% CHANGE
26.1303	Evolutionary Biology.											
26.1304	Aquatic Biology/Limnology.											
26.1305	Environmental Biology.											
26.1306	Population Biology.											
26.1307	Conservation Biology.	106	107	112	96	0	112	0	421	0.9%	84.2	-100.0%
26.1308	Systematic Biology/Biological Systematics.											
26.1309	Epidemiology.											
27.0101	Mathematics, General.	395	393	412	417	389	417	389	2006	4.2%	401.2	-1.5%
27.0102	Algebra and Number Theory.											
27.0103	Analysis and Functional Analysis.											
27.0104	Geometry/Geometric Analysis.											
27.0105	Topology and Foundations.											
27.0301	Applied Mathematics.											
27.0303	Computational Mathematics.											
27.0501	Statistics, General.											
27.0502	Mathematical Statistics and Probability.											
29.0101	Military Technologies.											
40.0101	Physical Sciences.	13	11	16	21	14	21	11	75	0.2%	15	7.7%
40.0201	Astronomy.											
40.0202	Astrophysics.											
40.0203	Planetary Astronomy and Science.											
40.0401	Atmospheric Sciences and Meteorology, General.											
40.0402	Atmospheric Chemistry and Climatology.											
40.0403	Atmospheric Physics and Dynamics.											
40.0404	Meteorology.											
40.0501	Chemistry, General.	700	691	737	827	932	932	691	3887	8.2%	777.4	33.1%
40.0502	Analytical Chemistry.											
40.0503	Inorganic Chemistry.											
40.0504	Organic Chemistry.											
40.0506	Physical and Theoretical Chemistry.											
40.0507	Polymer Chemistry.											
40.0508	Chemical Physics.											
40.0601	Geology/Earth Science, General.	98	78	89	86	96	98	78	447	0.9%	89.4	-2.0%
40.0602	Geochemistry.											
40.0603	Geophysics and Seismology.											
40.0604	Paleontology.											
40.0605	Hydrology and Water Resources Science.											
40.0606	Geochemistry and Petrology.											
40.0607	Oceanography, Chemical and Physical.											
40.0801	Physics, General.	146	138	155	151	169	169	138	759	1.6%	151.8	15.8%
40.0802	Atomic/Molecular Physics.											
40.0804	Elementary Particle Physics.											
40.0805	Plasma and High-Temperature Physics.											
40.0806	Nuclear Physics.											
40.0807	Optics/Optical Sciences.											
40.0808	Solid State and Low-Temperature Physics.											
40.0809	Acoustics.											
40.0810	Theoretical and Mathematical Physics.											
41.0101	Biology Technician/Biotechnology Laboratory Technician.											
41.0204	Industrial Radiologic Technology/Technician.											
41.0205	Nuclear/Nuclear Power Technology/Technician.											
41.0301	Chemical Technology/Technician.											
<b>51.1401</b>	<b>Medical Scientist (MS, PhD).</b>											
52.1304	Actuarial Science											
	TOTAL	9,745	9,248	9,262	9,382	9,808			47,445			0.6%

## STEM Designated Degree Programs

*Effective date: April 8, 2008; Updated September 25, 2008*

The following is a list of Classification of Instructional Programs codes published by the National Center for Education Statistics (NCES CIP codes) that have been designated by ICE as science, technology, engineering, or math (STEM) degrees for the purpose of approving a 17-month STEM the student's degree program must be on this list. Other requirements are found in the regulatory language.

### STEM List: Numerical Order

CIP Code Family	CIP Code	Numeric Order CIP Code Title
11	11.0101	Computer and Information Sciences, General
11	11.0102	Artificial Intelligence and Robotics.
11	11.0103	Information Technology.
11	11.0201	Computer Programming/Programmer, General
11	11.0202	Computer Programming, Specific Application
11	11.0203	Computer Programming, Vendor/Product Center
11	11.0301	Data Processing and Data Processing Techn
11	11.0401	Information Science/Studies.
11	11.0501	Computer Systems Analysis/Analyst.
11	11.0701	Computer Science.
11	11.0801	Web Page, Digital/Multimedia and Information
11	11.0802	Data Modeling/Warehousing and Database A
11	11.0803	Computer Graphics.
11	11.0901	Computer Systems Networking and Telecom
11	11.1001	System Administration/Administrator.
11	11.1002	System, Networking, and LAN/WAN Manage
11	11.1003	Computer and Information Systems Security.
11	11.1004	Web/Multimedia Management and Webmaste
14	14.0101	Engineering, General.
14	14.0201	Aerospace, Aeronautical and Astronautical E
14	14.0301	Agricultural/Biological Engineering and Bioen
14	14.0401	Architectural Engineering.
14	14.0501	Biomedical/Medical Engineering.
14	14.0601	Ceramic Sciences and Engineering.
<b>14</b>	<b>14.0701</b>	<b>Chemical Engineering.</b>
14	14.0801	Civil Engineering, General.
14	14.0802	Geotechnical Engineering.
14	14.0803	Structural Engineering.
14	14.0804	Transportation and Highway Engineering.
14	14.0805	Water Resources Engineering.
14	14.0901	Computer Engineering, General.
14	14.0902	Computer Hardware Engineering.
14	14.0903	Computer Software Engineering.
14	14.1001	Electrical, Electronics and Communications E
14	14.1101	Engineering Mechanics.
14	14.1201	Engineering Physics.
14	14.1301	Engineering Science.
14	14.1401	Environmental/Environmental Health Enginee
14	14.1801	Materials Engineering.

**STEM List: Numerical Order**

<b>CIP Code Family</b>	<b>CIP Code</b>	<b>Numeric Order CIP Code Title</b>
14	14.1901	Mechanical Engineering.
14	14.2001	Metallurgical Engineering.
14	14.2101	Mining and Mineral Engineering.
14	14.2201	Naval Architecture and Marine Engineering.
14	14.2301	Nuclear Engineering.
14	14.2401	Ocean Engineering.
14	14.2501	Petroleum Engineering.
14	14.2701	Systems Engineering.
14	14.2801	Textile Sciences and Engineering.
14	14.3101	Materials Science.
14	14.3201	Polymer/Plastics Engineering.
14	14.3301	Construction Engineering.
14	14.3401	Forest Engineering.
14	14.3501	Industrial Engineering.
14	14.3601	Manufacturing Engineering.
14	14.3701	Operations Research.
14	14.3801	Surveying Engineering.
14	14.3901	Geological/Geophysical Engineering.
15	15	Engineering Technology, General.
15	15.0101	Architectural Engineering Technology/Technician.
15	15.0201	Civil Engineering Technology/Technician.
15	15.0303	Electrical, Electronic and Communications Engineering Technology/Technician.
15	15.0304	Laser and Optical Technology/Technician.
15	15.0305	Telecommunications Technology/Technician.
15	15.0401	Biomedical Technology/Technician.
15	15.0403	Electromechanical Technology/Electromechanical Technician.
15	15.0404	Instrumentation Technology/Technician.
15	15.0405	Robotics Technology/Technician.
15	15.0501	Heating, Air Conditioning and Refrigeration Technology/Technician.
15	15.0503	Energy Management and Systems Technology/Technician.
15	15.0505	Solar Energy Technology/Technician.
15	15.0506	Water Quality and Wastewater Treatment Management Technology/Technician.
15	15.0507	Environmental Engineering Technology/Environmental Technician.
15	15.0508	Hazardous Materials Management and Waste Management Technology/Technician.
15	15.0607	Plastics Engineering Technology/Technician.
15	15.0611	Metallurgical Technology/Technician.
15	15.0612	Industrial Technology/Technician.
15	15.0613	Manufacturing Technology/Technician.
15	15.0701	Occupational Safety and Health Technology/Technician.
15	15.0702	Quality Control Technology/Technician.
15	15.0703	Industrial Safety Technology/Technician.
15	15.0704	Hazardous Materials Information Systems Technology/Technician.
15	15.0801	Aeronautical/Aerospace Engineering Technology/Technician.
15	15.0803	Automotive Engineering Technology/Technician.
15	15.0805	Mechanical Engineering/Mechanical Technology/Technician.
15	15.0901	Mining Technology/Technician.
15	15.0903	Petroleum Technology/Technician.
15	15.1001	Construction Engineering Technology/Technician.
15	15.1102	Surveying Technology/Surveying.
15	15.1103	Hydraulics and Fluid Power Technology/Technician.

**STEM List: Numerical Order**

CIP Code Family	CIP Code	Numeric Order CIP Code Title
15	15.1201	Computer Engineering Technology/Technician.
15	15.1202	Computer Technology/Computer Systems Technician.
15	15.1203	Computer Hardware Technology/Technician.
15	15.1204	Computer Software Technology/Technician.
15	15.1301	Drafting and Design Technology/Technician.
15	15.1302	CAD/CADD Drafting and/or Design Technology/Technician.
15	15.1303	Architectural Drafting and Architectural CAD/CADD.
15	15.1304	Civil Drafting and Civil Engineering CAD/CADD.
15	15.1305	Electrical/Electronics Drafting and Electrical/Electronics Technology/Technician.
15	15.1306	Mechanical Drafting and Mechanical Drafting Technology/Technician.
15	15.1401	Nuclear Engineering Technology/Technician.
15	15.1501	Engineering/Industrial Management.
26	26.0101	Biology/Biological Sciences, General.
26	26.0102	Biomedical Sciences, General.
26	26.0202	Biochemistry.
26	26.0203	Biophysics.
26	26.0204	Molecular Biology.
26	26.0205	Molecular Biochemistry.
26	26.0206	Molecular Biophysics.
26	26.0207	Structural Biology.
26	26.0208	Photobiology.
26	26.0209	Radiation Biology/Radiobiology.
26	26.021	Biochemistry/Biophysics and Molecular Biology.
26	26.0301	Botany/Plant Biology.
26	26.0305	Plant Pathology/Phytopathology.
26	26.0307	Plant Physiology.
26	26.0308	Plant Molecular Biology.
26	26.0401	Cell/Cellular Biology and Histology.
26	26.0403	Anatomy.
26	26.0404	Developmental Biology and Embryology.
26	26.0405	Neuroanatomy.
26	26.0406	Cell/Cellular and Molecular Biology.
26	26.0407	Cell Biology and Anatomy.
26	26.0502	Microbiology, General.
26	26.0503	Medical Microbiology and Bacteriology.
26	26.0504	Virology.
26	26.0505	Parasitology.
26	26.0506	Mycology.
26	26.0507	Immunology.
26	26.0701	Zoology/Animal Biology.
26	26.0702	Entomology.
26	26.0707	Animal Physiology.
26	26.0708	Animal Behavior and Ethology.
26	26.0709	Wildlife Biology.
26	26.0801	Genetics, General.
26	26.0802	Molecular Genetics.
26	26.0803	Microbial and Eukaryotic Genetics.
26	26.0804	Animal Genetics.
26	26.0805	Plant Genetics.
26	26.0806	Human/Medical Genetics.



**STEM List: Numerical Order**

<b>CIP Code Family</b>	<b>CIP Code</b>	<b>Numeric Order CIP Code Title</b>
26	26.0901	Physiology, General.
26	26.0902	Molecular Physiology.
26	26.0903	Cell Physiology.
26	26.0904	Endocrinology.
26	26.0905	Reproductive Biology.
26	26.0906	Neurobiology and Neurophysiology.
26	26.0907	Cardiovascular Science.
26	26.0908	Exercise Physiology.
26	26.0909	Vision Science/Physiological Optics.
26	26.091	Pathology/Experimental Pathology.
26	26.0911	Oncology and Cancer Biology.
26	26.1001	Pharmacology.
26	26.1002	Molecular Pharmacology.
26	26.1003	Neuropharmacology.
26	26.1004	Toxicology.
26	26.1005	Molecular Toxicology.
26	26.1006	Environmental Toxicology.
26	26.1007	Pharmacology and Toxicology.
26	26.1101	Biometry/Biometrics.
26	26.1102	Biostatistics.
26	26.1103	Bioinformatics.
26	26.1201	Biotechnology.
26	26.1301	Ecology.
26	26.1302	Marine Biology and Biological Oceanography
26	26.1303	Evolutionary Biology.
26	26.1304	Aquatic Biology/Limnology.
26	26.1305	Environmental Biology.
26	26.1306	Population Biology.
26	26.1307	Conservation Biology.
26	26.1308	Systematic Biology/Biological Systematics.
26	26.1309	Epidemiology.
27	27.0101	Mathematics, General.
27	27.0102	Algebra and Number Theory.
27	27.0103	Analysis and Functional Analysis.
27	27.0104	Geometry/Geometric Analysis.
27	27.0105	Topology and Foundations.
27	27.0301	Applied Mathematics.
27	27.0303	Computational Mathematics.
27	27.0501	Statistics, General.
27	27.0502	Mathematical Statistics and Probability.
29	29.0101	Military Technologies.
40	40.0101	Physical Sciences.
40	40.0201	Astronomy.
40	40.0202	Astrophysics.
40	40.0203	Planetary Astronomy and Science.
40	40.0401	Atmospheric Sciences and Meteorology, Gen
40	40.0402	Atmospheric Chemistry and Climatology.
40	40.0403	Atmospheric Physics and Dynamics.
40	40.0404	Meteorology.
40	40.0501	Chemistry, General.

**STEM List: Numerical Order**

<b>CIP Code Family</b>	<b>CIP Code</b>	<b>Numeric Order CIP Code Title</b>
40	40.0502	Analytical Chemistry.
40	40.0503	Inorganic Chemistry.
40	40.0504	Organic Chemistry.
40	40.0506	Physical and Theoretical Chemistry.
40	40.0507	Polymer Chemistry.
40	40.0508	Chemical Physics.
40	40.0601	Geology/Earth Science, General.
40	40.0602	Geochemistry.
40	40.0603	Geophysics and Seismology.
40	40.0604	Paleontology.
40	40.0605	Hydrology and Water Resources Science.
40	40.0606	Geochemistry and Petrology.
40	40.0607	Oceanography, Chemical and Physical.
40	40.0801	Physics, General.
40	40.0802	Atomic/Molecular Physics.
40	40.0804	Elementary Particle Physics.
40	40.0805	Plasma and High-Temperature Physics.
40	40.0806	Nuclear Physics.
40	40.0807	Optics/Optical Sciences.
40	40.0808	Solid State and Low-Temperature Physics.
40	40.0809	Acoustics.
40	40.0810	Theoretical and Mathematical Physics.
41	41.0101	Biology Technician/Biotechnology Laboratory
41	41.0204	Industrial Radiologic Technology/Technician.
41	41.0205	Nuclear/Nuclear Power Technology/Technician.
41	41.0301	Chemical Technology/Technician.
51	51.1401	<b>Medical Scientist (MS, PhD).</b>
52	52.1304	Actuarial Science

## Education Majors by Year with a STEM Field of Study (CIP Code 13 - Fall Term Only)

NOTE: (1) This is a count of all students for the Fall term only.

Degree Codes based on the Academic Year selected of 2009

No.	Type	Inst. Name	CIP Code	CIP Name	Degree Level	Degree Code	Degree Name	AY 2005	AY 2006	AY 2007	AY 2008	AY 2009	% CHANGE
1	1	ASUJ	13.1309	Technology Teacher Education/Industrial Arts Teacher Education	3	1215	Technical - Vocational Education	2	0	1	0	0	-100%
2	1	ASUJ	13.1311	Mathematics Teacher Education	5	3910	Mathematics Education	54	55	46	41	33	-39%
3	1	ASUJ	13.1311	Mathematics Teacher Education	7	6870	Mathematics	1	5	0	0	0	-100%
4	1	ASUJ	13.1322	Biology Teacher Education	7	6650	Biology	0	1	0	0	2	
5	1	ASUJ	13.1322	Biology Teacher Education	5	3700	Biology	18	22	16	10	11	-39%
6	1	ASUJ	13.1323	Chemistry Teacher Education	5	3720	Chemistry	7	8	1	4	5	-29%
7	1	ASUJ	13.1323	Chemistry Teacher Education	7	6670	Chemistry	0	0	0	0	0	
8	1	ASUJ	13.1329	Physics Teacher Education	5	3960	Physics	0	2	0	0	0	
9	1	ATU	13.1311	Mathematics Teacher Education	7	5790	Mathematics	3	2	3	1	2	-33%
10	1	ATU	13.1311	Mathematics Teacher Education	5	9870	Mathematics	30	38	26	42	35	17%
11	1	ATU	13.1316	Science Teacher Education/General Science Teach Education	5	9010	Physical Science & Earth Science	6	9	3	7	7	17%
12	1	ATU	13.1322	Biology Teacher Education	5	9300	Life Science & Earth Science	20	13	12	6	8	-60%
13	1	ATU	13.1323	Chemistry Teacher Education	5	3720	Chemistry	0	0	0	0	0	
14	1	HSU	13.1311	Mathematics Teacher Education	5	3910	Mathematics	0	0	0	0	0	
15	1	HSU	13.1311	Mathematics Teacher Education	7	6870	Mathematics	2	1	0	0	0	-100%
16	1	HSU	13.1316	Science Teacher Education/General Science Teach Education	7	6890	Physical Science	0	0	0	0	0	
17	1	HSU	13.1316	Science Teacher Education/General Science Teach Education	5	2640	General Science	0	0	0	0	0	
18	1	HSU	13.1322	Biology Teacher Education	5	3700	Biology	0	0	0	0	0	
19	1	HSU	13.1322	Biology Teacher Education	7	6650	Biology	0	2	0	0	0	
20	1	HSU	13.1323	Chemistry Teacher Education	5	3720	Chemistry	0	0	0	0	0	
21	1	HSU	13.1329	Physics Teacher Education	5	3960	Physics	0	0	0	0	0	
22	1	SAUM	13.1311	Mathematics Teacher Education	5	3910	Mathematics	13	10	6	2	2	-85%
23	1	SAUM	13.1311	Mathematics Teacher Education	7	5790	Mathematics Education	0	0	0	0	0	
24	1	SAUM	13.1311	Mathematics Teacher Education	7	5800	Mathematics, General Science	0	0	0	0	0	
25	1	SAUM	13.1316	Science Teacher Education/General Science Teach Education	5	3830	General Science	1	3	2	3	1	0%
26	1	SAUM	13.1316	Science Teacher Education/General Science Teach Education	7	5710	General Science in Secondary Education	1	0	0	0	0	-100%
27	1	SAUM	13.1322	Biology Teacher Education	5	3690	Biological Sciences	3	5	3	0	0	-100%
28	1	SAUM	13.1323	Chemistry Teacher Education	5	3720	Chemistry	0	0	0	0	0	
29	1	SAUM	13.1329	Physics Teacher Education	5	3960	Physics	2	0	0	0	0	-100%
30	1	UAF	13.1309	Technology Teacher Education/Industrial Arts Teacher Education	5	3890	Industrial & Technical Education	0	0	0	0	0	
31	1	UAF	13.1311	Mathematics Teacher Education	5	3910	Mathematics Education	0	0	0	0	0	
32	1	UAF	13.1311	Mathematics Teacher Education	7	5460	Secondary Mathematics	0	0	1	2	1	
33	1	UAF	13.1311	Mathematics Teacher Education	7	5790	Mathematics Education	0	0	0	0	0	
34	1	UAF	13.1316	Science Teacher Education/General Science Teach Education	5	3990	Science Education	0	0	0	0	0	
35	1	UAFS	13.1311	Mathematics Teacher Education	5	3910	Mathematics	50	56	40	31	39	-22%
36	1	UAFS	13.1322	Biology Teacher Education	5	3700	Biology	51	45	42	42	34	-33%
37	1	UAFS	13.1323	Chemistry Teacher Education	5	3720	Chemistry	6	4	5	3	5	-17%
38	1	UAM	13.1311	Mathematics Teacher Education	5	9870	Mathematics	0	0	0	0	0	
39	1	UAM	13.1311	Mathematics Teacher Education	7	5790	Mathematics	0	0	0	0	0	
40	1	UAM	13.1316	Science Teacher Education/General Science Teach Education	5	9010	Physical Science	0	0	0	0	0	
41	1	UAM	13.1316	Science Teacher Education/General Science Teach Education	7	5700	General Science	0	0	0	0	0	
42	1	UAM	13.1316	Science Teacher Education/General Science Teach Education	5	9640	General Science	0	0	0	0	0	
43	1	UAM	13.1322	Biology Teacher Education	5	9300	Biology	0	0	0	0	0	
44	1	UAM	13.1323	Chemistry Teacher Education	5	3720	Chemistry	0	0	0	0	0	
45	1	UAM	13.1329	Physics Teacher Education	5	9030	Physics	0	0	0	0	0	
46	1	UAPB	13.1311	Mathematics Teacher Education	5	3910	Mathematics Education	13	10	10	12	16	23%
47	1	UAPB	13.1311	Mathematics Teacher Education	7	5790	Mathematics Education	0	0	2	1	3	
48	1	UAPB	13.1316	Science Teacher Education/General Science Teach Education	7	5845	Science Education	0	3	2	5	5	
49	1	UAPB	13.1316	Science Teacher Education/General Science Teach Education	5	3170	Science Education	1	2	1	4	2	100%
50	1	UCA	13.1309	Technology Teacher Education/Industrial Arts Teacher Education	7	6865	Industrial Technology	0	0	0	0	0	
51	1	UCA	13.1309	Technology Teacher Education/Industrial Arts Teacher Education	5	3895	Industrial Technology	0	0	0	0	0	
52	1	UCA	13.1311	Mathematics Teacher Education	5	3910	Mathematics	42	50	48	54	44	5%
53	1	UCA	13.1311	Mathematics Teacher Education	7	6870	Mathematics	0	0	0	0	0	
54	1	UCA	13.1316	Science Teacher Education/General Science Teach Education	7	6890	Physical Science	0	76	14	0	0	
55	1	UCA	13.1316	Science Teacher Education/General Science Teach Education	5	3830	General Science	0	0	1	0	0	
56	1	UCA	13.1316	Science Teacher Education/General Science Teach Education	5	3950	Secondary Science Education	3	14	17	26	19	533%
57	1	UCA	13.1322	Biology Teacher Education	5	3700	Biology	0	0	0	0	0	
58	1	UCA	13.1322	Biology Teacher Education	7	6650	Biology	0	0	0	0	0	
59	1	UCA	13.1323	Chemistry Teacher Education	5	3720	Chemistry	0	0	0	0	0	
60	1	UCA	13.1329	Physics Teacher Education	5	3960	Physics	0	0	0	0	0	
Total								329	436	302	296	274	-17%

**STEM Graduates/Credentials from AY2004 - AY2008**

Institution	AY2004	AY2005	AY2006	AY2007	AY2008	TOTAL	Change	Percent
ASUJ	190	221	183	127	140	861	-50	-26.3%
ATU	144	136	143	135	118	676	-26	-18.1%
HSU	46	37	33	34	42	192	-4	-8.7%
SAUM	54	45	36	27	46	208	-8	-14.8%
UAF	498	476	426	477	441	2,318	-57	-11.4%
UAFS	19	23	31	60	40	173	21	110.5%
UALR	151	155	146	168	164	784	13	8.6%
UAM	19	26	27	23	26	121	7	36.8%
UAPB	43	57	59	49	58	266	15	34.9%
UCA	113	106	102	139	146	606	33	29.2%
STEM Graduates	1,277	1,282	1,186	1,239	1,221	6,205	-56	-4.4%
Average	127.7	128.2	118.6	123.9	122.1	620.5	-5.6	-4.4%
Statewide Bacc. Graduates	8,536	8,843	8,935	9,189	9,306	44,809	770	9.0%
STEM Percent of Statewide	15.0%	14.5%	13.3%	13.5%	13.1%	13.8%	-1.8%	

