



## **Baccalaureate Origins of Earned Doctoral Degrees (2003-2012)**

PhD production rate is calculated as the number of doctorates (Ph.D., Sc.D., and Ed.D.) earned between 2003 and 2012 by the institution's baccalaureate alumni, divided by the number of B.A./B.S. degrees awarded by the institution between 1998 and 2007.

The data are available from WebCASPAR (<https://ncesdata.nsf.gov/webcaspar/>). Two surveys were used to compile these statistics: the NSF Survey of Earned Doctorates (<http://www.nsf.gov/statistics/srvydoctorates/>), and the IPEDS Completions Survey coordinated by the National Center for Education Statistics (<http://nces.ed.gov/ipeds/>).

The data were retrieved by the Higher Education Data Sharing Consortium (HEDS).

### Key points:

- Pomona College is among the top 25 schools in the U.S. for PhD production. An estimated 12.8 doctoral degrees were earned by Pomona alumni for every 100 bachelor degrees earned over the period analyzed.
- Pomona College is also among the top 25 schools in the U.S. for PhD production within the fields of Geosciences, Life Sciences, Math and Computer Sciences, Psychology, Social Sciences, and Humanities.
- Pomona College is among the top 50 schools in the U.S. for PhD production in the Physical Sciences, and among the top 75 schools in the U.S. for PhD production in the Arts.

### Notes:

- Small schools that awarded fewer than 500 total BA/BS degrees in the ten years between 1998-2007 were excluded from these lists, because their small enrollments meant that their PhD production rates were based on a small total number of PhDs. For example, both UC Berkeley and the Webb Institute of Naval Architecture had a 10 year PhD production rate of 7.4 per 100 Baccalaureate degrees. However while UC Berkeley graduates earned 4,607 PhDs between 2003-2012, Webb Institute graduates earned 12 PhDs.
- The excluded schools are: Bard College at Simon's Rock (MA), Pontifical College Josephinum (OH), Saint Joseph Seminary College (LA), Shimer College (IL), Texas A&M Health Science Center, Thomas More College of Liberal Arts (NH), and the Webb Institute of Naval Architecture (NY).
- The above exclusion process was not followed for PhDs earned in "the Arts," as doing so would result in the exclusion of some of the top PhD-producing music conservatories in the U.S.
- The denominators for total PhD production, and PhD production for each of the specific disciplines (e.g. Geosciences) are the same. The denominator is the total number of BA/BS degrees awarded by the institution between 1998-2007 in all fields, and irrespective of

baccalaureate major. Thus, these data do not specifically reflect the number of majors within a field (e.g. Geology) who go on to earn PhDs in that same field (i.e. Geosciences).

- The degree fields included in each discipline can be found on pages 14-17.

## All PhDs

Institution (top 100)	Number of PhDs awarded to alumni (2003-2012)	Total BA/BS degrees awarded (1998-2007), all disciplines	Doctoral degrees per 100 BA/BS degrees
California Institute of Technology	785	2160	36.3
Harvey Mudd College	372	1590	23.4
Swarthmore College	738	3577	20.6
Reed College	563	2829	19.9
Carleton College	811	4621	17.6
Massachusetts Institute of Technology	2026	12076	16.8
Grinnell College	524	3407	15.4
Harvard University	2500	17956	13.9
Princeton University	1555	11267	13.8
University of Chicago	1349	10002	13.5
Haverford College	392	2907	13.5
Oberlin College	897	6895	13.0
Williams College	664	5188	12.8
<b>Pomona College</b>	<b>483</b>	<b>3783</b>	<b>12.8</b>
Amherst College	534	4207	12.7
Bryn Mawr College	384	3035	12.7
Yale University	1671	13329	12.5
Rice University	905	7375	12.3
St John's College	114	1004	11.4
Macalester College	469	4189	11.2
Brown University	1689	15123	11.2
Stanford University	1880	17242	10.9
Wesleyan University (CT)	745	7278	10.2
Wellesley College	609	5980	10.2
Lawrence University (WI)	277	2729	10.2
Earlham College	221	2328	9.5
Vassar College	571	6032	9.5
University of Rochester	1073	11359	9.4
Hendrix College	205	2174	9.4
Duke University	1456	15474	9.4
Case Western Reserve University	709	7568	9.4
Cornell University, All Campuses	3218	35250	9.1
Kalamazoo College	252	2810	9.0
Dartmouth College	943	10626	8.9
New Mexico Institute of Mining and Technology	158	1781	8.9
Smith College	623	7057	8.8
The New England Conservatory of Music	67	762	8.8

Bowdoin College	360	4195	8.6
Hampshire College	224	2623	8.5
Mount Holyoke College	438	5143	8.5
Kenyon College	323	3899	8.3
College of William and Mary	1096	13621	8.0
Carnegie Mellon University	950	11882	8.0
Brandeis University	609	7673	7.9
Occidental College	312	3931	7.9
Columbia University in the City of New York	1308	16488	7.9
Whitman College	275	3482	7.9
Allegheny College	311	4020	7.7
The College of Wooster	303	3928	7.7
Davidson College	328	4312	7.6
Spelman College	344	4534	7.6
Johns Hopkins University	985	13005	7.6
St Olaf College	514	6811	7.5
Trinity University (TX)	401	5317	7.5
Cooper Union for the Advancement of Science and Art	142	1889	7.5
University of California-Berkeley	4607	62381	7.4
Barnard College	434	5919	7.3
Bard College	207	2862	7.2
Knox College	182	2557	7.1
Wheaton College (IL)	417	5879	7.1
Franklin and Marshall College	300	4350	6.9
Tougaloo College	93	1353	6.9
Bates College	301	4382	6.9
Colorado College	353	5145	6.9
The Juilliard School	69	1010	6.8
St John's College (NM)	58	849	6.8
Middlebury College	417	6124	6.8
Northwestern University	1373	20380	6.7
Wabash College	116	1765	6.6
Scripps College	120	1831	6.6
University of Dallas	158	2425	6.5
Colby College	311	4804	6.5
Centre College	153	2370	6.5
Beloit College	175	2729	6.4
Agnes Scott College	112	1755	6.4
Drew University	215	3384	6.4
Washington University in St Louis	980	15568	6.3
Sewanee-The University of the South	195	3108	6.3
Southwestern University	179	2859	6.3
Colgate University	418	6903	6.1

Claremont McKenna College	162	2716	6.0
Ohio Wesleyan University	225	3817	5.9
Cleveland Institute of Music	31	529	5.9
Tufts University	760	12980	5.9
Juniata College	170	2915	5.8
Connecticut College	253	4413	5.7
Hamilton College	253	4431	5.7
Furman University	368	6472	5.7
University of Virginia-Main Campus	1831	32289	5.7
Rensselaer Polytechnic Institute	634	11239	5.6
University of Pennsylvania	1536	27858	5.5
Wake Forest University	513	9305	5.5
Rhodes College	182	3339	5.5
Emory University	794	14587	5.4
Vanderbilt University	784	14423	5.4
University of Michigan at Ann Arbor	3067	56614	5.4
University of Notre Dame	1083	20278	5.3
Sarah Lawrence College	144	2700	5.3
Bucknell University	451	8481	5.3
Rose-Hulman Institute of Technology	187	3533	5.3

## PhDs in Geosciences

Institution (top 25)	Number of PhDs Awarded to Alumni (2003-2012)	Number of BA/BS Degrees Awarded (1998-2007), All Disciplines	Doctoral degrees in Geosciences per 100 BA/BS degrees
California Institute of Technology	42	2160	1.9
Carleton College	81	4621	1.8
New Mexico Institute of Mining and Technology	15	1781	0.8
Harvey Mudd College	12	1590	0.8
Whitman College	23	3482	0.7
Colorado School of Mines	32	4958	0.6
Eckerd College	23	3689	0.6
Williams College	29	5188	0.6
Colorado College	28	5145	0.5
<b>Pomona College</b>	<b>20</b>	<b>3783</b>	<b>0.5</b>
Amherst College	22	4207	0.5
Juniata College	14	2915	0.5
Macalester College	20	4189	0.5
Lyndon State College	8	1816	0.4
Bates College	19	4382	0.4
Texas A & M University-Galveston	9	2082	0.4
Oberlin College	28	6895	0.4
Brown University	61	15123	0.4
Hampshire College	10	2623	0.4
Rice University	28	7375	0.4
Colgate University	26	6903	0.4
Franklin and Marshall College	16	4350	0.4
Lawrence University	10	2729	0.4
Middlebury College	22	6124	0.4
Massachusetts Institute of Technology	42	12076	0.3

## PhDs in Life Sciences

Institution (top 25)	Number of PhDs Awarded to Alumni (2003-2012)	Number of BA/BS Degrees Awarded (1998-2007), All Disciplines	Doctoral degrees in Life Sciences per 100 BA/BS degrees
California Institute of Technology	142	2160	6.6
Reed College	137	2829	4.8
Carleton College	208	4621	4.5
Swarthmore College	152	3577	4.2
Grinnell College	143	3407	4.2
Haverford College	115	2907	4.0
Massachusetts Institute of Technology	443	12076	3.7
<b>Pomona College</b>	<b>133</b>	<b>3783</b>	<b>3.5</b>
University of Chicago	342	10002	3.4
Earlham College	78	2328	3.4
Harvey Mudd College	53	1590	3.3
Cornell University, All Campuses	1103	35250	3.1
Allegheny College	123	4020	3.1
Harvard University	532	17956	3.0
Duke University	454	15474	2.9
College of the Atlantic (ME)	17	582	2.9
SUNY College of Environmental Science and Forestry	80	2749	2.9
Brown University	433	15123	2.9
University of Rochester	317	11359	2.8
Princeton University	310	11267	2.8
Stanford University	473	17242	2.7
Oberlin College	189	6895	2.7
Yale University	363	13329	2.7
Rice University	198	7375	2.7
Kalamazoo College	75	2810	2.7

## PhDs in Math and Computer Science

Institution (top 25)	Number of PhDs Awarded to Alumni (2003-2012)	Number of BA/BS Degrees Awarded (1998-2007), All Disciplines	Doctoral degrees in Math and Computer Science per 100 BA/BS degrees
Harvey Mudd College	98	1590	6.16
California Institute of Technology	115	2160	5.32
Massachusetts Institute of Technology	290	12076	2.40
Carnegie Mellon University	185	11882	1.56
Rice University	99	7375	1.34
Harvard University	239	17956	1.33
University of Chicago	120	10002	1.20
Princeton University	135	11267	1.20
Swarthmore College	42	3577	1.17
New Mexico Institute of Mining and Technology	20	1781	1.12
Reed College	30	2829	1.06
Carleton College	47	4621	1.02
Williams College	50	5188	0.96
Rose-Hulman Institute of Technology	30	3533	0.85
Haverford College	22	2907	0.76
Rensselaer Polytechnic Institute	85	11239	0.76
Stanford University	124	17242	0.72
<b>Pomona College</b>	<b>25</b>	<b>3783</b>	<b>0.66</b>
Grinnell College	22	3407	0.65
Amherst College	27	4207	0.64
Yale University	83	13329	0.62
Brown University	91	15123	0.60
Whitman College	20	3482	0.57
Case Western Reserve University	43	7568	0.57
Columbia University in the City of New York	93	16488	0.56



### PhDs in Physical Sciences (Chemistry, Physics)

Institution (top 25)	Number of PhDs Awarded to Alumni (2003-2012)	Number of BA/BS Degrees Awarded (1998-2007), All Disciplines	Doctoral degrees in Physical Science per 100 BA/BS degrees
California Institute of Technology	271	2160	12.5
Harvey Mudd College	113	1590	7.1
Reed College	85	2829	3.0
New Mexico Institute of Mining and Technology	47	1781	2.6
Massachusetts Institute of Technology	304	12076	2.5
Carleton College	94	4621	2.0
Wabash College	31	1765	1.8
Swarthmore College	60	3577	1.7
Lawrence University (WI)	45	2729	1.6
Grinnell College	54	3407	1.6
The College of Wooster	60	3928	1.5
Haverford College	44	2907	1.5
Rice University	108	7375	1.5
University of Chicago	146	10002	1.5
Harvard University	254	17956	1.4
Kalamazoo College	38	2810	1.4
Allegheny College	54	4020	1.3
Princeton University	148	11267	1.3
Franklin and Marshall College	57	4350	1.3
Case Western Reserve University	96	7568	1.3
Williams College	63	5188	1.2
Bryn Mawr College	35	3035	1.2
Hendrix College	25	2174	1.1
Colorado School of Mines	50	4958	1.0
Macalester College	41	4189	1.0

**Pomona College was not in the top 25, but alumni received 35 PhDs in the physical sciences between 2003-2012 for a PhD production rate of 0.9 PhDs per 100 Baccalaureate degrees.**

## PhDs in Psychology

Institution (top 25)	Number of PhDs Awarded to Alumni (2003-2012)	Number of BA/BS Degrees Awarded (1998-2007), All Disciplines	Doctoral degrees in Psychology per 100 BA/BS degrees
University of Puerto Rico-Aguadilla (PR)	61	2957	2.1
Wellesley College	103	5980	1.7
Reed College	45	2829	1.6
Barnard College	89	5919	1.5
Vassar College	86	6032	1.4
<b>Pomona College</b>	<b>53</b>	<b>3783</b>	<b>1.4</b>
Swarthmore College	50	3577	1.4
Hendrix College	30	2174	1.4
Grinnell College	47	3407	1.4
Haverford College	40	2907	1.4
Williams College	71	5188	1.4
Yale University	173	13329	1.3
Southwestern University	34	2859	1.2
Wesleyan University (CT)	86	7278	1.2
Connecticut College	52	4413	1.2
Claremont McKenna College	32	2716	1.2
Duke University	181	15474	1.2
Spelman College	53	4534	1.2
Carleton College	52	4621	1.1
Scripps College	20	1831	1.1
Smith College	77	7057	1.1
Brown University	165	15123	1.1
Bryn Mawr College	33	3035	1.1
Macalester College	45	4189	1.1
Brandeis University	81	7673	1.1

**PhDs in Social Sciences** (Including: Economics, Political Science, Public Policy, Sociology, Anthropology, Linguistics, Area Studies)

Institution (top 25)	Number of PhDs Awarded to Alumni (2003-2012)	Number of BA/BS Degrees Awarded (1998-2007), All Disciplines	Doctoral degrees in Social Sciences per 100 BA/BS degrees
Swarthmore College	134	3577	3.7
Reed College	87	2829	3.1
Harvard University	482	17956	2.7
University of Chicago	258	10002	2.6
Grinnell College	85	3407	2.5
Bryn Mawr College	74	3035	2.4
Amherst College	90	4207	2.1
Macalester College	89	4189	2.1
Oberlin College	139	6895	2.0
<b>Pomona College</b>	<b>76</b>	<b>3783</b>	<b>2.0</b>
Carleton College	92	4621	2.0
Wesleyan University (CT)	144	7278	2.0
Williams College	102	5188	2.0
Princeton University	212	11267	1.9
Yale University	245	13329	1.8
St John's College (MD)	17	1004	1.7
Haverford College	47	2907	1.6
Vassar College	97	6032	1.6
Brown University	242	15123	1.6
Stanford University	270	17242	1.6
Wellesley College	93	5980	1.6
Hampshire College	39	2623	1.5
Dartmouth College	157	10626	1.5
Beloit College	39	2729	1.4
Bard College	38	2862	1.3

**PhDs in Humanities** (Including: History, Literature, English, Languages, Philosophy)

Institution (top 25)	Number of PhDs Awarded to Alumni (2003-2012)	Number of BA/BS Degrees Awarded (1998-2007), All Disciplines	Doctoral degrees in Humanities per 100 BA/BS degrees
St John's College (MD)	46	1004	4.6
Reed College	119	2829	4.2
Swarthmore College	134	3577	3.7
Amherst College	139	4207	3.3
Carleton College	130	4621	2.8
Bryn Mawr College	84	3035	2.8
St John's College (NM)	23	849	2.7
Yale University	351	13329	2.6
Thomas Aquinas College	15	605	2.5
Princeton University	260	11267	2.3
Bard College	66	2862	2.3
Harvard University	410	17956	2.3
Grinnell College	77	3407	2.3
University of Chicago	222	10002	2.2
Wesleyan University (CT)	154	7278	2.1
<b>Pomona College</b>	<b>79</b>	<b>3783</b>	<b>2.1</b>
Haverford College	58	2907	2.0
Vassar College	120	6032	2.0
Kenyon College	77	3899	2.0
Oberlin College	135	6895	2.0
Williams College	100	5188	1.9
University of Dallas	46	2425	1.9
Sarah Lawrence College	51	2700	1.9
Smith College	121	7057	1.7
Brown University	259	15123	1.7

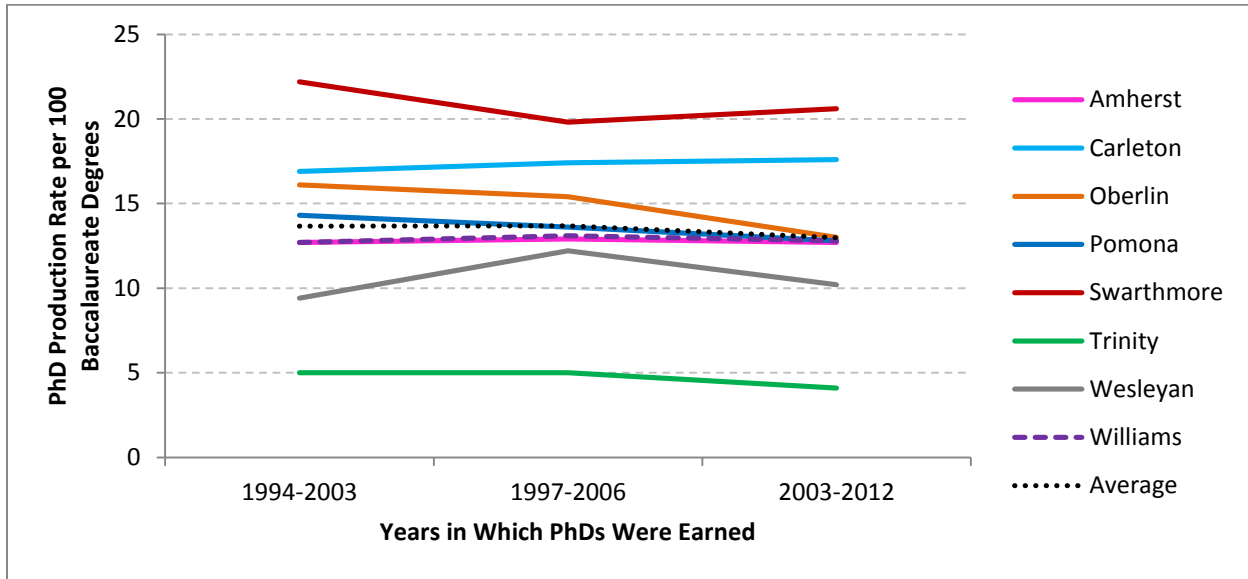
## PhDs in the Arts

Institution (top 25)	Number of PhDs Awarded to Alumni (2003-2012)	Number of BA/BS Degrees Awarded (1998-2007), All Disciplines	Doctoral degrees in the Arts per 100 BA/BS degrees
The New England Conservatory of Music	56	762	7.35
Curtis Institute of Music	13	248	5.24
The Juilliard School	51	1010	5.05
Cleveland Institute of Music	22	529	4.16
Manhattan School of Music	28	845	3.31
San Francisco Conservatory of Music	9	347	2.59
Oberlin College	160	6895	2.32
The Boston Conservatory	8	576	1.39
Puerto Rico Conservatory of Music	4	304	1.32
Lawrence University (WI)	33	2729	1.21
University of North Carolina School of the Arts	14	1195	1.17
Bard College at Simon's Rock	4	419	0.95
Yale University	118	13329	0.89
Swarthmore College	30	3577	0.84
University of Rochester	94	11359	0.83
Grinnell College	27	3407	0.79
Berklee College of Music	38	4919	0.77
Williams College	36	5188	0.69
Stetson University	30	4411	0.68
Wellesley College	40	5980	0.67
California Institute of the Arts	11	1716	0.64
Barnard College	36	5919	0.61
Carleton College	28	4621	0.61
Reed College	17	2829	0.60
Smith College	41	7057	0.58

Pomona College was not in the top 25, but alumni received 12 PhDs in the arts between 2003-2012 for a PhD production rate of 0.32 PhDs per 100 Baccalaureate degrees.

### PhD production (all fields) over time

HEDS periodically compiles the data on baccalaureate origins of PhDs. Below are the PhD production rates for Pomona and several other coed peer institutions at three different time points. PhD production rate is based on the total number of PhDs earned by alumni. The PhD production rate from 1994-2003 is per 100 baccalaureate degrees awarded between 1989-1998; the rate from 1997-2006 is per 100 baccalaureate degrees awarded between 1992-2001; and, the rate from 2003-2012 is per 100 baccalaureate degrees awarded between 1998-2007. Note that there is some overlap among the three time points in which PhD production was measured.



Note. The dotted black line is the average PhD production rate for the eight schools listed.

Degree fields included in each category

Geosciences:

Applied Geology Applied Geology/Geological Engineering Atmospheric Chemistry and Climatology Atmospheric Physics and Dynamics Atmospheric Science/Meteorology, General Atmospheric Science/Meteorology, Other Geochemistry Geology Geology and Earth Sciences, General Geology and Earth Sciences, Other Geomorphology and Glacial Geology	Geophysics (Solid Earth) Geophysics and Seismology Hydrology and Water Resources Marine Sciences Meteorology Mineralogy and Petrology Mineralogy, Petrology, and Geochemistry Ocean/Marine, Other Oceanography, Chemical and Physical Paleontology Stratigraphy and Sedimentation
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Life Sciences:

Agricultural and Horticultural Plant Breeding Agricultural Animal Breeding Agricultural Science, General Agricultural Science, Other Agronomy and Crop Science Anatomy Animal and Plant Physiology Animal Husbandry Animal Nutrition Animal Science, Poultry (or Avian) Animal Sciences, Other Bacteriology Biochemistry Bioinformatics Biology/Biomedical Sciences, General Biology/Biomedical Sciences, Other Biomedical Sciences Biometrics and Biostatistics Biophysics Biotechnology Botany/Plant Biology Cancer Biology Cell/Cellular Biology and Histology Computational Biology Dairy Science Dentistry Developmental Biology/Embryology	Gerontology Health Policy Analysis Health Sciences, General Health Sciences, Other Health Systems/Services Administration Horticulture Science Hospital Administration Hydrobiology Immunology Kinesiology/Exercise Science Marine Biology and Biological Oceanography Medicinal/Pharmaceutical Sciences Medicine and Surgery Microbiology Microbiology and Bacteriology Molecular Biology Natural Resource/Environmental Economics Natural Resources/Conservation Neurosciences and Neurobiology Nursing Science Nutrition Sciences Optometry and Ophthalmology Oral Biology/Oral Pathology Parasitology Pathology, Human and Animal Pharmacology, Human and Animal Physiology, Human and Animal
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Ecology	Plant Genetics
Endocrinology	Plant Pathology/Phytopathology
Entomology	Plant Pathology/Phytopathology
Environmental Health	Plant Physiology
Environmental Science	Plant Protection/Pest Management
Environmental Science	Plant Sciences, Other
Environmental Toxicology	Public Health
Environmental Toxicology	Public Health and Epidemiology
Epidemiology	Rehabilitation/Therapeutic Services
Evolutional Biology	Soil Chemistry/Microbiology
Fish and Wildlife	Soil Sciences
Fishing and Fisheries Sciences/Management	Soil Sciences, Other
Food Distribution	Speech-Language Pathology and Audiology
Food Science	Structural Biology
Food Science and Technology, Other	Toxicology
Food Sciences	Veterinary Sciences
Forest Engineering	Virology
Forest Sciences and Biology	Wildlife Management
Forest/Resources Management	Wildlife/Range Management
Forestry and Related Sciences, Other	Wood Science and Pulp/Paper Technology
Forestry Science	Zoology, Other
Genetics	
Genetics/Genomics, Human and Animal	

Math and Computer Science:

Algebra	Logic
Analysis and Functional Analysis	Mathematics, General
Applied Mathematics	Mathematics, Other
Computer and Information Science, Other	Number Theory
Computer Science	Operations Research
Computing Theory and Practice	Robotics
Geometry/Geometric Analysis	Statistics
Information Science and Systems	Topology/Foundations



Physical Sciences:

Acoustics	Mechanics
Agricultural and Food Chemistry	Medical Physics/Radiological Science
Analytical Chemistry	Medicinal/Pharmaceutical Chemistry
Applied Physics	Nuclear Chemistry
Astronomy	Nuclear Physics
Astronomy & Astrophysics	Optics/Photonics
Astronomy, Other	Organic Chemistry
Astrophysics	Particle (Elementary) Physics
Atomic/Molecular/Chemical Physics	Physical Chemistry
Biophysics	Physics, General
Chemistry, General	Physics, Other
Chemistry, Other	Plasma/Fusion Physics
Condensed Matter/Low Temperature Physics	Polymer Chemistry
Electromagnetism	Polymer Physics
Electron Physics	Theoretical Chemistry
Fluids Physics	Theoretical Physics
Inorganic Chemistry	Thermal Physics

Psychology:

Behavioral Analysis	Human Development and Family Studies
Clinical Psychology	Human Engineering
Cognitive Psychology and Psycholinguistics	Industrial and Organizational Psychology
Comparative Psychology	Personality Psychology
Counseling	Physiological/Psychobiology
Developmental and Child Psychology	Psychology, General
Educational Psychology	Psychology, Other
Experimental Psychology	Psychometrics
Experimental, Comparative, Physiological Psychology	Psychometrics and Quantitative Psychology
Family Psychology	School Psychology
Health and Medical Psychology	Social Psychology

Social Sciences:

Agricultural Economics American/U.S. Studies Anthropology Archeology Area/Ethnic/Cultural/Gender Studies Criminal Justice & Corrections Criminology Demography/Population Studies Econometrics Economics Geography Gerontology	History, Science and Technology and Society International Relations/Affairs Linguistics Political Science and Government Political Science and Public Administration Public Administration Public Policy Analysis Social Sciences, General Social Sciences, Other Sociology Statistics Urban Affairs/Studies
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Humanities:

African History American History (U.S. and Canada) American Literature (U.S. and Canada) Arabic Asian History Chinese Classics Comparative Literature Creative Writing English and American Literature English Language English Language English Literature (British and Commonwealth) Ethics European History Folklore French German Hebrew	History, General History, Other Humanities, General Humanities, Other Italian Japanese Jewish/Judaic Studies and History Latin American History Letters, General Letters, Other Middle/Near East Studies Other Languages and Literature Philosophy Rhetoric and Composition Russian Slavic (other than Russian) Spanish Speech and Rhetorical Studies
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Arts:

Art History/Criticism/Conservation Art, Applied Art, Fine/Applied Drama/Theater Arts	Film/Cinema/Video Studies Music Music Performance	Music Theory & Composition Music, Other Musicology/Ethnomusicology
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