

TABLE A-1
Comparison of science, engineering, and health doctoral fields of study in the SDR and the SED: Field of study aligned to NCSES Taxonomy of Disciplines
 (Crosswalk)

SDR field of study aggregations aligned with ToD						SED field of study information						
SEH group	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD) ^a		Fine field (PHDFIELD) ^a		Start year	End year		
	Code	Label	Code	Label	Code	Label	Code	Label				
Science	1	Biological, agricultural, and environmental life sciences	11	Agricultural and food sciences	1101	Agricultural sciences	098	Agriculture, general	1958	Present		
							099	Agricultural science, other	1958	Present		
					1102	Animal sciences	005	Agricultural animal breeding	1983	2013		
							007	Animal husbandry	1958	1982		
							010	Animal nutrition	1969	Present		
							012	Dairy science	1988	2003		
							014	Animal science, poultry (or avian)	1988	Present		
							019	Animal science, other	1983	Present		
							040	Food sciences	1969	1989		
					1103	Food sciences and technology	043	Food science	1988	Present		
							044	Food science and technology, other	1988	Present		
							020	Agronomy and crop science	1958	Present		
					1104	Plant sciences	025	Agricultural and horticultural plant breeding/ genetics	1983	Present		
							032	Plant protection/ pest management	1988	1991		
							039	Plant sciences, other	1983	Present		
							050	Horticulture science	1958	Present		
							045	Soil sciences	1968	1988		
							046	Soil chemistry/ microbiology	1988	Present		
					1105	Soil sciences	049	Soil sciences, other	1988	Present		
							1201	Biochemistry	100	Biochemistry	1958	Present
							1202	Biophysics	105	Biophysics	1958	Present
					155	Structural biology			2010	Present		
					13	Cell, cellular biology, and molecular biology	1301	Cell, cellular biology, and molecular biology	130	Anatomy	1958	Present
									136	Cell/ cellular biology and histology	1959	Present
									142	Developmental biology/ embryology	1960	Present
									154	Molecular biology	1965	Present
									159	Molecular medicine	2016	Present
14	Microbiological sciences and Immunology	1401	Immunology	151	Immunology	1972	Present					
				1402	Microbiological sciences	110	Bacteriology	1983	Present			
						156	Microbiology/ bacteriology	1958	1982			
						157	Microbiology	1983	Present			
						166	Parasitology	1973	Present			
						168	Virology	2010	Present			
15	Natural resources and conservation	1501	Fish, fisheries, wildlife and wildlands science and management	054	Fish and wildlife science	1958	1982					

TABLE A-1
Comparison of science, engineering, and health doctoral fields of study in the SDR and the SED: Field of study aligned to NCSES Taxonomy of Disciplines
 (Crosswalk)

SDR field of study aggregations aligned with ToD						SED field of study information				
SEH group	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD) ^a		Fine field (PHDFIELD) ^a		Start year	End year
	Code	Label	Code	Label	Code	Label	Code	Label		
							055	Fishing and fisheries sciences/ management	1983	Present
							060	Wildlife	1983	1988
							080	Wildlife/ range management	1988	Present
					1502	Forestry	065	Forestry science	1958	1988
							066	Forest sciences and biology	1988	Present
							070	Forest/ resources management	1988	Present
							072	Wood science and pulp/ paper technology	1988	Present
							079	Forestry and related science, other	1988	Present
					1503	Natural resource conservation, research, management, and policy	074	Natural resources/ conservation	1988	Present
							081	Environmental science	1972	Present
							685	Natural resource and environmental policy	2014	Present
			16	Zoology			148	Entomology	1958	Present
					1601	Zoology, animal biology	188	Wildlife biology	2014	Present
							189	Zoology, other	1958	Present
					1701	Biomathematics, bioinformatics, and computational biology	102	Bioinformatics	2007	Present
							104	Computational biology	2010	Present
							133	Biometrics and biostatistics	1958	Present
					1702	Botany and plant biology	030	Plant pathology/ phytopathology	1958	Present
							120	Plant pathology/ phytopathology	1983	Present
							125	Plant physiology	1958	Present
							129	Botany/ plant biology	1958	Present
					1703	Epidemiology, ecology, and population biology	134	Epidemiology	2014	Present
							137	Evolutionary biology	2002	Present
							139	Ecology	1958	Present
			17	Other biological sciences			140	Hydrobiology	1958	1979
							220	Epidemiology	1983	2013
					1704	Genetics	115	Plant genetics	1983	Present
							170	Genetics/ genomics, human and animal	1983	Present
							171	Genetics	1958	1982
					1705	Neurobiology and neuroscience	160	Neurosciences	1982	Present
							626	Cognitive neuroscience	2016	Present
					1706	Nutrition sciences	163	Nutrition sciences	1958	Present
					1707	Pharmacology and toxicology	167	Environmental toxicology	2010	Present
							169	Toxicology	1966	Present

TABLE A-1

Comparison of science, engineering, and health doctoral fields of study in the SDR and the SED: Field of study aligned to NCSSES Taxonomy of Disciplines

(Crosswalk)

SDR field of study aggregations aligned with ToD						SED field of study information						
SEH group	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD) ^a		Fine field (PHDFIELD) ^a		Start year	End year		
	Code	Label	Code	Label	Code	Label	Code	Label				
							180	Pharmacology, human and animal	1958	Present		
							211	Environmental toxicology	2004	2009		
							1708	Physiology, pathology, and related sciences	145	Endocrinology	1983	Present
									158	Cancer biology	2007	Present
									175	Pathology, human and animal	1958	Present
									185	Physiology, human and animal	1960	Present
									103	Biomedical sciences	1995	Present
							1709	Biological and biomedical sciences, general	198	Biology/ biomedical sciences, general	1958	Present
									107	Biotechnology	1993	Present
							1710	Biological and biomedical sciences, other	199	Biology/ biomedical sciences, other	1958	Present
	400	Computer science	1973	Present								
	2	Computer and information sciences	21	Computer and information sciences	2101	Computer science	410	Information science/ systems	1983	Present		
					2102	Information science, studies	418	Computer and information sciences, general	2014	Present		
					2103	Computer and information sciences, other	419	Computer/ information sciences, other	1999	Present		
	3	Mathematics and statistics	31	Mathematics and statistics			3101	Applied mathematics	420	Applied mathematics	1958	Present
							3102	Mathematics	425	Algebra	1958	Present
									430	Analysis and functional analysis	1958	Present
									435	Geometry/ geometric analysis	1958	Present
									440	Logic	1958	Present
									445	Number theory	1958	Present
									455	Topology/ foundations	1958	Present
									460	Computing theory and practice	1960	Present
							498	Mathematics/ statistics, general	1958	Present		
							3103	Statistics	450	Statistics	1958	Present
	3104	Mathematics and statistics, other	465	Operations research (mathematics)	1973	Present						
			499	Mathematics/ statistics, other	1958	Present						
	4	Physical sciences, geosciences, atmospheric, and ocean sciences	41	Astronomy and astrophysics			930	Operations research (business management/ administration)	1983	Present		
500							Astronomy	1969	Present			
505							Astrophysics	1969	Present			
506			Astronomy and astrophysics	1958			1969					
509			Astronomy, other	2010			Present					
42			Chemistry, except biochemistry	4201			Inorganic chemistry	522	Inorganic chemistry	1958	Present	
	4202	Organic chemistry		526	Organic chemistry	1958	Present					
	4203	Chemistry, other, except biochemistry		520	Analytical chemistry	1958	Present					

TABLE A-1

Comparison of science, engineering, and health doctoral fields of study in the SDR and the SED: Field of study aligned to NCSES Taxonomy of Disciplines

(Crosswalk)

SDR field of study aggregations aligned with ToD						SED field of study information				
SEH group	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD) ^a		Fine field (PHDFIELD) ^a		Start year	End year
	Code	Label	Code	Label	Code	Label	Code	Label		
							521	Agricultural/ food	1958	1979
							524	Nuclear chemistry	1960	2003
							527	Chemical biology	2016	Present
							530	Physical chemistry	1958	Present
							532	Polymer chemistry	1973	Present
							534	Theoretical chemistry	1960	Present
							538	Chemistry, general	1958	Present
							539	Chemistry, other	1958	Present
					4301	Atmospheric sciences and meteorology	510	Atmospheric chemistry and climatology	1976	Present
							512	Atmospheric physics and dynamics	1976	Present
							514	Meteorology	1958	Present
							518	Atmospheric science/ meteorology, general	1983	Present
							519	Atmospheric science/ meteorology, other	1976	Present
							540	Geology	1958	Present
							542	Geochemistry	1968	Present
							544	Geophysics and seismology	1976	Present
							545	Geophysics, solid earth	1958	1976
							546	Paleontology	1958	Present
							548	Mineralogy and petrology	1969	Present
							549	Mineralogy/ petrology/ geological chemistry	1958	1969
							550	Stratigraphy and sedimentation	1958	Present
							552	Geomorphology and glacial geology	1958	Present
							554	Applied geology	1969	1991
							555	Applied geology/ geological engineering	1958	1969
							558	Geological and earth sciences, general	1959	Present
							559	Geological and earth sciences, other	1958	Present
							585	Hydrology and water resources	1959	Present
							152	Marine biology and biological oceanography	2012	Present
							595	Marine sciences	1983	Present
							599	Ocean/ marine, other	1977	Present
							590	Oceanography, chemical and physical	1958	Present
							560	Acoustics	1958	Present
							561	Atomic/ molecular/ chemical physics	1958	Present
							562	Electron physics	1983	1991
			43	Geosciences, atmospheric, and ocean sciences	4302	Geological and earth sciences, geosciences				
			44	Physics	4401	Physics				

TABLE A-1
Comparison of science, engineering, and health doctoral fields of study in the SDR and the SED: Field of study aligned to NCSES Taxonomy of Disciplines

(Crosswalk)

SDR field of study aggregations aligned with ToD							SED field of study information												
SEH group	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD) ^a		Fine field (PHDFIELD) ^a		Start year	End year									
	Code	Label	Code	Label	Code	Label	Code	Label											
							563	Electromagnetism	1958	1979									
							564	Particle (elementary) physics	1958	Present									
							565	Biophysics	2004	Present									
							566	Fluids	1959	2003									
							567	Mechanics	1958	1976									
							568	Nuclear physics	1958	Present									
							569	Optics/ photonics	1958	Present									
							570	Plasma/ fusion physics	1967	Present									
							572	Polymer physics	1983	Present									
							573	Thermal physics	1960	1981									
							574	Condensed matter/ low temperature physics	1958	Present									
							576	Applied physics	2004	Present									
							578	Physics, general	1958	Present									
							579	Physics, other	1958	Present									
							5	Psychology		51	Psychology			5101	Clinical psychology	600	Clinical psychology	1958	Present
														5102	Counseling and applied psychology	602	Behavioral analysis	2012	Present
																609	Counseling	1958	Present
																614	Health and medical psychology	2012	Present
																620	Family psychology	1995	Present
																642	Community psychology	2016	Present
5103	Educational and school psychology	618	Educational psychology	1958	Present														
		636	School psychology	1960	Present														
		822	Educational psychology	1958	Present														
5104	Industrial and organizational psychology	621	Industrial and organizational	1958	Present														
5105	Research and experimental psychology	603	Cognitive psychology and psycholinguistics	1983	Present														
		606	Comparative psychology	1962	2009														
		612	Developmental and child psychology	1958	Present														
		613	Human development and family studies	1994	Present														
		615	Experimental psychology	1958	Present														
		624	Personality psychology	1958	Present														
		627	Physiological/ psychobiology psychology	1961	Present														
		630	Psychometrics	1958	2003														
		633	Psychometrics and quantitative psychology	1983	Present														
639	Social psychology	1958	Present																

TABLE A-1
Comparison of science, engineering, and health doctoral fields of study in the SDR and the SED: Field of study aligned to NCSES Taxonomy of Disciplines

(Crosswalk)

SDR field of study aggregations aligned with ToD						SED field of study information						
SEH group	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD) ^a		Fine field (PHDFIELD) ^a		Start year	End year		
	Code	Label	Code	Label	Code	Label	Code	Label				
	6	Social sciences			5106	Psychology, general	648	Psychology, general	1958	Present		
					5107	Psychology, other	649	Psychology, other	1958	Present		
			61	Economics	6101	Economics	000	Agricultural economics	1969	Present		
							003	Natural resource/ environmental economics (agricultural sciences)	2012	Present		
							665	Natural resource/ environmental economics (social sciences)	2012	Present		
							667	Economics	1958	Present		
							668	Econometrics	1958	Present		
							678	Political science and government	1974	Present		
			62	Political science and government	6201	Political science and government	679	Political science/ public administration	1958	1976		
							6202	Public policy analysis	217	Health policy analysis	2012	Present
									682	Public policy analysis	1983	Present
			63	Sociology, demography, and population studies	6301	Sociology, demography, and population studies	662	Demography/ population studies	1983	Present		
							686	Sociology	1958	Present		
			64	Other social sciences	6401	Anthropology	650	Anthropology	1958	Present		
							655	Anthropology, cultural	2014	Present		
							656	Anthropology, physical and biological	2014	Present		
							651	Gender and women's studies	2014	Present		
							652	Area/ ethnic/ cultural/ gender studies	1958	Present		
							770	American/ U.S. studies	1975	Present		
							6403	Geography and cartography	670	Geography	1958	Present
							6404	International relations and national security studies	674	International relations/ affairs	1958	Present
							6405	Linguistics	675	Applied linguistics	2016	Present
							6406	Urban studies, affairs	676	Linguistics	1958	Present
							6407	Social sciences, other			694	Urban affairs/ studies
			658	Criminology	1980	Present						
			684	Gerontology	2010	Present						
			690	Statistics	1967	Present						
698	Social sciences, general	1958	Present									
699	Social sciences, other	1958	Present									
710	History, science and technology and society	1971	Present									
773	Archaeology	1958	Present									
Engineering	7	Engineering	71	Aerospace, aeronautical, and astronautical engineering	7101	Aerospace, aeronautical, and astronautical engineering	300	Aerospace, aeronautical and astronautical engineering	1958	Present		
			72	Chemical engineering	7201	Chemical engineering	312	Chemical engineering	1958	Present		
							369	Polymer and plastics engineering	1983	Present		

TABLE A-1
Comparison of science, engineering, and health doctoral fields of study in the SDR and the SED: Field of study aligned to NCSES Taxonomy of Disciplines
 (Crosswalk)

SDR field of study aggregations aligned with ToD						SED field of study information						
SEH group	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD) ^a		Fine field (PHDFIELD) ^a		Start year	End year		
	Code	Label	Code	Label	Code	Label	Code	Label				
			73	Civil engineering	7301	Civil engineering	315	Civil engineering	1958	Present		
							316	Structural engineering	2010	Present		
							336	Environmental health engineering	1958	Present		
							337	Geotechnical and geoenvironmental engineering	2012	Present		
							373	Transportation and highway engineering	2012	Present		
							376	Engineering management and administration	2007	Present		
			74	Electrical and computer engineering	7401	Computer engineering	321	Computer engineering	1975	Present		
							318	Communications engineering	1983	Present		
							322	Electrical engineering	1958	1985		
							323	Electronics engineering	1958	1983		
							324	Electrical, electronics and communications engineering	1983	Present		
							345	Mechanical engineering	1958	Present		
			75	Mechanical engineering	7501	Mechanical engineering and robotics	415	Robotics	2010	Present		
							309	Ceramic sciences engineering	1958	2013		
			76	Metallurgical and materials engineering	7601	Metallurgical and materials engineering	342	Materials science engineering	1969	Present		
							348	Metallurgical engineering	1958	Present		
							351	Mining and mineral engineering	1969	2013		
							303	Agricultural engineering	1958	Present		
			77	Other engineering	7701	Agricultural engineering	306	Bioengineering and biomedical engineering	1969	Present		
							7702	Bioengineering and Biomedical engineering	327	Engineering mechanics	1958	Present
							7703	Engineering mechanics, physics, and science	330	Engineering physics	1958	Present
									333	Engineering science	1983	Present
									339	Industrial and manufacturing engineering	1958	Present
							7704	Industrial and manufacturing engineering	363	Operations research (engineering)	1971	Present
									372	Systems engineering	1975	Present
									7705	Nuclear engineering	357	Nuclear engineering
							7706	Engineering, other	7706	Engineering, other	068	Forest engineering
354	Naval architecture/ marine engineering	1983									1991	
360	Ocean engineering	1983									Present	
366	Petroleum engineering	1973									Present	
398	Engineering, general	1958	Present									
399	Engineering, other	1958	Present									
547	Fuel technology/ petroleum engineering	1967	1979									
Health	8	Health	81	Health	8101	Communication disorders sciences and services	200	Speech-language pathology and audiology	1963	Present		

TABLE A-1
Comparison of science, engineering, and health doctoral fields of study in the SDR and the SED: Field of study aligned to NCSSES Taxonomy of Disciplines
 (Crosswalk)

SDR field of study aggregations aligned with ToD						SED field of study information				
SEH group	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD) ^a		Fine field (PHDFIELD) ^a		Start year	End year
	Code	Label	Code	Label	Code	Label	Code	Label		
					8102	Hospital and medical administration services	212	Health systems/ service administration	1993	Present
							219	Public health/ epidemiology	1958	1982
							224	Hospital administration	1958	1977
					8103	Pharmacy, pharmaceutical sciences, and administration	225	Medicine and surgery	1958	1976
							240	Pharmaceutical sciences	1958	Present
							528	Medicinal/ pharmaceutical	1958	Present
					8104	Public health	210	Environmental health	1972	Present
							213	Health services research	2016	Present
							215	Public health	1978	Present
							280	Health and behavior	2014	Present
							577	Medical physics/ radiological science	2010	Present
					8105	Registered nursing, nursing administration, nursing research	230	Nursing science	1977	Present
							207	Oral biology/ oral pathology	2010	Present
							222	Kinesiology/ exercise science	1994	Present
							227	Gerontology	2010	Present
					8106	Health sciences, other	245	Rehabilitation/ therapeutic services	1991	Present
							250	Veterinary sciences	1958	Present
							298	Health sciences, general	1962	Present
							299	Health sciences, other	1958	Present
							610	Marriage and family therapy/ counseling	2016	Present

NCSSES = National Center for Science and Engineering Statistics. SDR = Survey of Doctorate Recipients. SED = Survey of Earned Doctorates. SEH = science, engineering, and health. ToD = Taxonomy of Disciplines.

^a Fine fields (PHDFIELD and NSDRMEDTOD) are not available in the downloadable 2019 SDR Public Use File.

Note(s):

SDR is a sample survey; SED is a census. Start year and end year are defined as the earliest and latest recorded use of a field in the 2017 Doctorate Records File, respectively. Field of study reporting for the 2019 SDR uses the updated disciplines first presented in 2017, which better align with the NCSSES ToD which is based on the Classification of Instructional Programs (CIP 2010) issued by the National Center for Education Statistics. This crosswalk displays the field of study aggregations aligned to the ToD.

Source(s):

National Center for Science and Engineering Statistics, Survey of Doctorate Recipients: 2019.