

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 (NSDRMMENTOD)		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
							1103	Food sciences and technology	040	Food sciences	1969	1989
					043	Food science			1988	Present		
					044	Food science and technology, other			1988	Present		
					1104	Plant sciences	020	Agronomy and crop science	1958	Present		
							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		
							1105	Soil sciences	045	Soil sciences	1968	1988
									046	Soil chemistry/ microbiology	1988	Present
					049	Soil sciences, other			1988	Present		
					12	Biochemistry and biophysics	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
							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	1601	Zoology, animal biology	148	Entomology	1958	Present
							188	Wildlife biology	2014	Present
							189	Zoology, other	1958	Present
			17	Other biological sciences	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
							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

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						
					1707	Pharmacology and toxicology	167	Environmental toxicology	2010	Present				
							169	Toxicology	1966	Present				
							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				
					1709	Biological and biomedical sciences, general	103	Biomedical sciences	1995	Present				
							198	Biology/ biomedical sciences, general	1958	Present				
					1710	Biological and biomedical sciences, other	107	Biotechnology	1993	Present				
							199	Biology/ biomedical sciences, other	1958	Present				
					2	Computer and information sciences	21	Computer and information sciences	2101	Computer science	400	Computer science	1973	Present
									2102	Information science, studies	410	Information science/ systems	1983	Present
									2103	Computer and information sciences, other	418	Computer and information sciences, general	2014	Present
419	Computer/ information sciences, other	1999	Present											
3	Mathematics and statistics	31	Mathematics and statistics	3101	Applied mathematics	420	Applied mathematics	1958	Present					
						461	Computational Mathematics	2018	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									

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 (NSDRMMENTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD) ^a		Fine field (PHDFIELD) ^a		Start year	End year					
	Code	Label	Code	Label	Code	Label	Code	Label							
							930	Operations research (business management/ administration)	1983	Present					
	4	Physical sciences, geosciences, atmospheric, and ocean sciences	41	Astronomy and astrophysics	4101	Astronomy and astrophysics	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	4203	Chemistry, other, except biochemistry	520	Analytical chemistry	1958	Present
												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				
					43	Geosciences, atmospheric, and ocean sciences	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				
				4302					Geological and earth sciences, geosciences	4302	Geological and earth sciences, geosciences	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										

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						
							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				
							4303	Ocean sciences and marine sciences	152	Marine biology and biological oceanography	2012	Present		
							595	Marine sciences	1983	Present				
							599	Ocean/ marine, other	1977	Present				
							4304	Oceanography, chemical and physical	590	Oceanography, chemical and physical	1958	Present		
							44	Physics	4401	Physics	560	Acoustics	1958	Present
							561	Atomic/ molecular/ chemical physics	1958	Present				
							562	Electron physics	1983	1991				
							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/ phototonics	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					

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 (NSDRMEMENTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD) ^a		Fine field (PHDFIELD) ^a		Start year	End year										
	Code	Label	Code	Label	Code	Label	Code	Label												
							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								
									5106	Psychology, general	648	Psychology, general	1958	Present						
									5107	Psychology, other	649	Psychology, other	1958	Present						
							6	Social sciences	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				
													62	Political science and government	6201	Political science and government	678	Political science and government	1974	Present
																	679	Political science/public administration	1958	1976
																	6202	Public policy analysis	217	Health policy analysis
													63	Sociology, demography, and population studies	6301	Sociology, demography, and population studies	682	Public policy analysis	1983	Present
																	662	Demography/population studies	1983	Present
																	686	Sociology	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		
			64	Other social sciences	6401	Anthropology	650	Anthropology	1958	Present
							655	Anthropology, cultural	2014	Present
							656	Anthropology, physical and biological	2014	Present
					6402	Area, ethnic, cultural, gender, and group studies	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
							676	Linguistics	1958	Present
					6406	Urban studies, affairs	694	Urban affairs/ studies	1959	Present
					6407	Social sciences, other	654	Archaeology	2018	Present
							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
							312	Chemical engineering	1958	Present
			72	Chemical engineering	7201	Chemical engineering	369	Polymer and plastics engineering	1983	Present
							315	Civil engineering	1958	Present
			73	Civil engineering	7301	Civil engineering	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

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						
			74	Electrical and computer engineering	7401	Computer engineering	321	Computer engineering	1975	Present				
					7402	Electrical, electronics, and communications engineering	318	Communications engineering	1983	Present				
							322	Electrical engineering	1958	1985				
							323	Electronics engineering	1958	1983				
			324	Electrical, electronics, and communications engineering			1983	Present						
			75	Mechanical engineering	7501	Mechanical engineering and robotics	345	Mechanical engineering	1958	Present				
							415	Robotics	2010	Present				
			76	Metallurgical and materials engineering	7601	Metallurgical and materials engineering	309	Ceramic sciences engineering	1958	2013				
							342	Materials science engineering	1969	Present				
							348	Metallurgical engineering	1958	Present				
							351	Mining and mineral engineering	1969	2013				
			77	Other engineering			7701	Agricultural engineering	303	Agricultural engineering	1958	Present		
							7702	Bioengineering and biomedical engineering	306	Bioengineering and biomedical engineering	1969	Present		
							7703	Engineering mechanics, physics, and science	327	Engineering mechanics	1958	Present		
									330	Engineering physics	1958	Present		
									333	Engineering science	1983	Present		
							7704	Industrial and manufacturing engineering			339	Industrial and manufacturing engineering	1958	Present
											363	Operations research (engineering)	1971	Present
											372	Systems engineering	1975	Present
											7705	Nuclear engineering	357	Nuclear engineering
7706	Engineering, other							068	Forest engineering	1988	2003			
								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 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		
					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
					8106	Health sciences, other	207	Oral biology/ oral pathology	2010	Present
							222	Kinesiology/ exercise science	1994	Present
							227	Gerontology	2010	Present
							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

SDR = Survey of Doctorate Recipients; SED = Survey of Earned Doctorates; SEH = science, engineering, and health.

^a Fine fields (PHDFIELD and NSDRMEDTOD) are not available in the downloadable 2021 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 2021 Doctorate Records File, respectively. Field of study reporting for the 2021 SDR uses the updated disciplines first presented in 2017, which better align with the NCSES Taxonomy of Disciplines (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, 2021.