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			
	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD)[a]		Fine field (PHDFIELD)[a]		Start year	End year
SEH Group	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	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
							055	Fishing and fisheries sciences/ management	1983	Present

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(Crosswalk)

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	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD)[a]		Fine field (PHDFIELD)[a]		Start year	End year
SEH Group	Code	Label	Code	Label	Code	Label	Code	Label		
							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
					1707	Pharmacology and toxicology	167	Environmental toxicology	2010	Present
							169	Toxicology	1966	Present

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(Crosswalk)

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	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD)[a]		Fine field (PHDFIELD)[a]		Start year	End year
SEH Group	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
					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
							930	Operations research (business management/ administration)	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			
	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD)[a]		Fine field (PHDFIELD)[a]		Start year	End year
SEH Group	Code	Label	Code	Label	Code	Label	Code	Label		
	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	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	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

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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			
	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD)[a]		Fine field (PHDFIELD)[a]		Start year	End year
SEH Group	Code	Label	Code	Label	Code	Label	Code	Label		
							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
							636	School psychology	1960	Present
							822	Educational psychology	1958	Present
					5104	Industrial and organizational psychology	621	Industrial and organizational	1958	Present

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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			
	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD)[a]		Fine field (PHDFIELD)[a]		Start year	End year
SEH Group	Code	Label	Code	Label	Code	Label	Code	Label		
					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	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
					6402	Area, ethnic, cultural, gender, and group studies	651	Gender and women's studies	2014	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)

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	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD)[a]		Fine field (PHDFIELD)[a]		Start year	End year
SEH Group	Code	Label	Code	Label	Code	Label	Code	Label		
							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
			72	Chemical engineering	7201	Chemical engineering	312	Chemical engineering	1958	Present
							369	Polymer and plastics engineering	1983	Present
			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
					7402	Electrical, electronics, and communications engineering	318	Communications engineering	1983	Present
							322	Electrical engineering	1958	1985
							323	Electronics engineering	1958	1983

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	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD)[a]		Fine field (PHDFIELD)[a]		Start year	End year
SEH Group	Code	Label	Code	Label	Code	Label	Code	Label		
							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	1969	Present
					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
					8102	Hospital and medical administration services	212	Health systems/ service administration	1993	Present
							219	Public health/ epidemiology	1958	1982
							224	Hospital administration	1958	1977

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	Broad field (NSDRMEMTOD)		Minor field (NSDRMENTOD)		Detailed field (NSDRMEDTOD)[a]		Fine field (PHDFIELD)[a]		Start year	End year
SEH Group	Code	Label	Code	Label	Code	Label	Code	Label		
					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.