

DHS STEM Designated Degree Program List

The U.S. Department of Homeland Security (DHS) STEM Designated Degree Program List is a complete list of fields of study that DHS considers to be science, technology, engineering or mathematics (STEM) fields of study for purposes of the 24-month STEM optional practical training extension described at 8 *CFR* 214.2(f). Under 8 *CFR* 214.2(f)(10)(ii)(C)(2), a STEM field of study is one “included in the Department of Education’s Classification of Instructional Programs taxonomy within the two-digit series containing engineering, biological sciences, mathematics, and physical sciences, or a related field. In general, related fields will include fields involving research, innovation, or development of new technologies using engineering, mathematics, computer science, or natural sciences (including physical, biological, and agricultural sciences).”

Accordingly, this list designates the following four primary CIP series at the 2-digit CIP code level: Engineering (14), Biological and Biomedical Sciences (26), Mathematics and Statistics (27) and Physical Sciences (40). Any new additions to those areas will automatically be included on this STEM Designated Degree Program List.

This list also includes CIPs from the following 18 related CIP series at the 6-digit CIP code level: Agricultural/Animal/Plant/Veterinary Science and Related Fields (01); Natural Resources and Conservation (03); Architecture and Related Services (04); Communication, Journalism and Related Programs (09); Communications Technologies/Technicians and Support Services (10); Computer and Information Sciences and Support Services (11); Education (13); Engineering/Engineering-Related Technologies/Technicians (15); Military Science, Leadership and Operational Art (28); Military Technologies and Applied Sciences (29); Multi/Interdisciplinary Studies (30); Science Technologies/Technicians (41); Psychology (42); Homeland Security, Law Enforcement, Firefighting and Related Protective Services (43); Social Sciences (45); Transportation and Materials Moving (49); Health Professions and Related Programs (51); and Business, Management, Marketing and Related Support Services (52).

CIP Code Two-Digit Series	2020 CIP Code	CIP Code Title
01	01.0308	Agroecology and Sustainable Agriculture.
01	01.0901	Animal Sciences, General.
01	01.0902	Agricultural Animal Breeding.
01	01.0903	Animal Health.
01	01.0904	Animal Nutrition.
01	01.0905	Dairy Science.
01	01.0906	Livestock Management.
01	01.0907	Poultry Science.
01	01.0999	Animal Sciences, Other.
01	01.1001	Food Science.
01	01.1002	Food Technology and Processing.
01	01.1099	Food Science and Technology, Other.
01	01.1101	Plant Sciences, General.
01	01.1102	Agronomy and Crop Science.

01	01.1103	Horticultural Science.
01	01.1104	Agricultural and Horticultural Plant Breeding.
01	01.1105	Plant Protection and Integrated Pest Management.
01	01.1106	Range Science and Management.
01	01.1199	Plant Sciences, Other.
01	01.1201	Soil Science and Agronomy, General.
01	01.1202	Soil Chemistry and Physics.
01	01.1203	Soil Microbiology.
01	01.1299	Soil Sciences, Other.
01	01.8105	Veterinary Anatomy.
01	01.8106	Veterinary Infectious Diseases.
01	01.8107	Veterinary Microbiology and Immunobiology.
01	01.8108	Veterinary Pathology and Pathobiology.
01	01.8109	Veterinary Physiology.
01	01.8110	Veterinary Preventive Medicine, Epidemiology, and Public Health.
01	01.8111	Veterinary Toxicology and Pharmacology.
03	03.0101	Natural Resources/Conservation, General.
03	03.0103	Environmental Studies.
03	03.0104	Environmental Science.
03	03.0199	Natural Resources Conservation and Research, Other.
03	03.0205	Water, Wetlands, and Marine Resources Management.
03	03.0210	Bioenergy.
03	03.0501	Forestry, General.
03	03.0502	Forest Sciences and Biology.
03	03.0508	Urban Forestry.
03	03.0509	Wood Science and Wood Products/Pulp and Paper Technology/Technician.
03	03.0510	Forest Resources Production and Management.
03	03.0601	Wildlife, Fish and Wildlands Science and Management.
04	04.0902	Architectural and Building Sciences/Technology.
09	09.0702	Digital Communication and Media/Multimedia.
10	10.0304	Animation, Interactive Technology, Video Graphics, and Special Effects.
11	11.0101	Computer and Information Sciences, General.
11	11.0102	Artificial Intelligence.
11	11.0103	Information Technology.
11	11.0104	Informatics.
11	11.0105	Human-Centered Technology Design.
11	11.0199	Computer and Information Sciences, Other.
11	11.0201	Computer Programming/Programmer, General.
11	11.0202	Computer Programming, Specific Applications.
11	11.0203	Computer Programming, Vendor/Product Certification.
11	11.0299	Computer Programming, Other.
11	11.0301	Data Processing and Data Processing Technology/ Technician.
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 Resources Design.
11	11.0802	Data Modeling/Warehousing and Database Administration.
11	11.0803	Computer Graphics.
11	11.0804	Modeling, Virtual Environments and Simulation.
11	11.0899	Computer Software and Media Applications, Other.
11	11.0901	Computer Systems Networking and Telecommunications.
11	11.0902	Cloud Computing.
11	11.1001	Network and System Administration/Administrator.
11	11.1002	System, Networking, and LAN/WAN Management/Manager.
11	11.1003	Computer and Information Systems Security/Auditing/Information Assurance.
11	11.1004	Web/Multimedia Management and Webmaster.
11	11.1005	Information Technology Project Management.

15	15.0401	Biomedical Technology/Technician.
15	15.0403	Electromechanical/Electromechanical Engineering Technology/Technician.
15	15.0404	Instrumentation Technology/Technician.
15	15.0405	Robotics Technology/Technician.
15	15.0406	Automation Engineer Technology/Technician.
15	15.0499	Electromechanical Technologies/Technicians, Other.
15	15.0501	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/Technician.
15	15.0506	Water Quality and Wastewater Treatment Management and Recycling Technology/Technician.
15	15.0507	Environmental/Environmental Engineering Technology/Technician.
15	15.0508	Hazardous Materials Management and Waste Technology/Technician.
15	15.0599	Environmental Control Technologies/Technicians, Other.
15	15.0607	Plastics and Polymer Engineering Technology/Technician.
15	15.0611	Metallurgical Te

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 CAD/CADD.
15	15.1306	

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	26.0508	Microbiology and Immunology.
26	26.0509	Infectious Disease and Global Health.
26	26.0599	Microbiological Sciences and Immunology, Other.
26	26.0700	Zoology/Animal Biology.
26	26.0701	Zoology/Animal Biology.
26	26.0702	Entomology.
26	26.0707	

40	40.0501	Chemistry, General.
40	40.0502	Analytical Chemistry.
40	40.0503	Inorganic Chemistry.
40	40.0504	Organic Chemistry.
40	40.0506	Physical Chemistry.
40	40.0507	Polymer Chemistry.
40	40.0508	Chemical Physics.
40	40.0509	Environmental Chemistry.
40	40.0510	Forensic Chemistry.
40	40.0511	Theoretical Chemistry.
40	40.0512	Cheminformatics/Chemistry Informatics.
40	40.0599	Chemistry, Other.
40	40.0600	Geological and Earth Sciences/Geosciences.
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	

41	41.0299	Nuclear and Industrial Radiologic Technologies/Technicians, Other.
41	41.0301	Chemical Technology/Technician.
41	41.0303	Chemical Process Technology.
41	41.0399	Physical Science Technologies/Technicians, Other.
41	41.9999	Science Technologies/Technicians, Other.

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