

## NSF Science and Engineering Fields and THECB Science and Engineering Fields

(Source: National Science Foundation Higher Education Research and Development Survey)

NOTE: FAMIS (Financial Accounting Management Info. System) Reporting Codes are included after Field of Science (2\*\*)

<b>Examples of Disciplines: Computer and Information Sciences and Engineering Fields of R&amp;D</b>			
<p><b>1. Computer and Information Sciences (2E)</b>                      Artificial intelligence                      Computer and information technology administration and management                      Computer science</p>	<p>Computer software and media applications                      Computer systems analysis                      Computer systems networking and telecommunications</p>	<p>Data processing                      Information sciences, studies                      Information technology</p>	
<p><b>2. Engineering</b></p> <p><b>1. Aerospace, Aeronautical/Astronautical Engineering (2A1)</b>                      Aerodynamics                      Aerospace engineering                      Space technology</p> <p><b>2. Bioengineering/Biomedical Engineering (2A8)</b>                      Biological and biosystems engineering                      Biomaterials engineering                      Biomedical technology                      Medical engineering</p> <p><b>3. Chemical Engineering (2A2)</b>                      Biochemical engineering                      Chemical and biomolecular engineering                      Engineering chemistry                      Paper science                      Petroleum refining science                      Polymer, plastics engineering</p>	<p><b>4. Civil Engineering (2A3)</b>                      Architectural engineering                      Construction engineering                      Engineering management, administration                      Environmental, environmental health engineering                      Geotechnical and geoenvironmental engineering                      Sanitary engineering                      Structural engineering                      Surveying engineering                      Transportation and highway engineering                      Water resources engineering</p> <p><b>5. Electrical, Electronic, and Communications Engineering (2A4)</b>                      Communications engineering                      Computer engineering                      Computer hardware engineering                      Computer software engineering                      Electrical and electronics engineering                      Laser and optical engineering                      Power                      Telecommunications engineering</p>	<p><b>6. Industrial and Manufacturing Engineering (2A9)</b>                      Industrial engineering                      Manufacturing engineering                      Operations research                      Systems engineering</p> <p><b>7. Mechanical Engineering (2A5)</b>                      Electromechanical engineering                      Mechatronics, robotics, automation engineering</p> <p><b>8. Metallurgical/Materials Engineering (2A6)</b>                      Ceramic sciences and engineering                      Geophysical, geological engineering                      Materials engineering                      Metallurgical engineering                      Mining and mineral engineering                      Textile sciences and engineering                      Welding</p>	<p><b>9. Other Engineering (2A7)</b>                      Agricultural engineering                      Engineering design                      Engineering mechanics                      Engineering physics                      Engineering science                      Forest engineering                      Nanotechnology                      Marine engineering                      Naval architecture                      Nuclear engineering                      Ocean engineering                      Petroleum engineering                      Other engineering fields that cannot be classified using any other Engineering Fields listed</p>

**Examples of Disciplines: Geosciences, Atmospheric, and Ocean Sciences Fields of R&D**

<p><b>3. Geosciences, Atmospheric, and Ocean Sciences</b></p> <p><b>1. Atmospheric Sciences (2C1)</b>  Aeronomy  Atmospheric chemistry and climatology  Atmospheric physics and dynamics  Extraterrestrial atmospheres  Meteorology  Solar  Weather modification</p>	<p><b>2. Geological and Earth Sciences (2C2)</b>  Earth and planetary sciences  Geochemistry  Geodesy and gravity  Geology  Geomagnetism  Geophysics and seismology  Hydrology and water resources  Minerology and petrology  Paleomagnetism  Paleontology  Physical geography  Stratigraphy and sedimentation  Surveying</p>	<p><b>3. Ocean and Marine Sciences (2C3)</b>  Biological oceanography  Chemical oceanography  Geological oceanography  Marine biology  Marine oceanography  Marine sciences  Physical oceanography</p>	<p><b>4. Other Geosciences, Atmospheric, and Ocean Sciences (2C5)</b>  Other fields that cannot be classified using the fields listed for Atmospheric, Geological and Earth Sciences, and Ocean Sciences</p>
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**Examples of Disciplines: Life Sciences Fields of R&D**

<p><b>4. Life Sciences</b></p> <p><b>1. Agricultural Sciences (2G)</b>  Agricultural business and management  Agricultural chemistry  Agricultural engineering—Report in Engineering  Agricultural production operations  Animal sciences  Applied horticulture and horticultural business services  Aquaculture  Fishing and fisheries sciences and management  Food science and technology  Forestry  International agriculture  Plant sciences  Soil sciences  Veterinary biomedical and clinical sciences  Veterinary medicine  Wood science</p> <p><b>2. Biological and Biomedical Sciences (2H1)</b>  Allergies and immunology  Biochemistry, biophysics, and molecular biology  Biogeography</p>	<p>Biology and biomedical sciences, general  Biomathematics, bioinformatics, and computational biology  Biotechnology  Botany and plant biology  Cell, cellular biology, and anatomical sciences  Epidemiology, ecology and population biology  Foods, nutrition, and wellness studies  Genetics  Microbiological sciences and immunology  Molecular medicine  Neurobiology and neuroscience  Pharmacology and toxicology  Physiology, pathology and related sciences  Zoology, animal biology</p> <p><b>3. Health Sciences (2F)</b>  Advanced, graduate dentistry and oral sciences  Allied health and medical assisting services  Bioethics, medical ethics</p>	<p>Clinical/medical laboratory science/research and allied professions  Clinical medicine research (includes several medical fields that had been previously listed separately)  Communication disorders sciences and services  Dentistry  Dietetics and clinical nutrition services (was previously Nutritional sciences)  Gerontology, health sciences  Health and medical administrative services  Health, medical preparatory programs  Kinesiology and exercise science  Medical clinical science, graduate medical studies  Medical illustration and informatics  Medicine  Mental health  Nursing  Optometry  Osteopathic medicine, osteopathy  Pharmacy, pharmaceutical sciences, and administration</p>	<p>Podiatric medicine, podiatry  Public health  Radiological science  Registered nursing, nursing administration, nursing research and clinical nursing  Rehabilitation and therapeutic professions</p> <p><b>4. Natural Resources and Conservation (2H3)</b>  Natural resources conservation and research  Natural resources management and policy  Renewable natural resources  Wildlife and wildlands science and management</p> <p><b>5. Other life sciences (2H2)</b>  Other life sciences that cannot be classified using other fields listed in Life Sciences</p>
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**Examples of Disciplines: Mathematics and Statistics, Physical Sciences and Psychology Fields of R&D**

**5. Mathematics and Statistics (2D)**

Applied mathematics  
Mathematics  
Statistics

**6. Physical Sciences**

**1. Astronomy, Astrophysics (2B1)**

Astronomy  
Astrophysics  
Planetary astronomy and science

**2. Chemistry (2B2)**

Analytical chemistry  
Chemical physics  
Environmental chemistry  
Forensic chemistry  
Inorganic chemistry  
Organic chemistry  
Organo-metallic chemistry  
Physical chemistry  
Polymer chemistry  
Theoretical chemistry  
(except Biochemistry—report in  
Biological and Biomedical Sciences)

**3. Materials Science (2B5)**

Materials chemistry  
Materials science

**4. Physics (2B3)**

Acoustics  
Atomic, molecular physics  
Condensed matter and materials  
physics  
Elementary particle physics  
Mathematical physics  
Nuclear physics  
Optics, optical sciences  
Plasma, high-temperature physics  
Theoretical physics

**5. Other Physical Sciences (2B4)**

Other physical sciences that cannot be  
classified using the fields listed already in  
Physical Sciences

**7. Psychology (2I)**

Clinical psychology  
Counseling and Applied psychology  
Human development  
Research psychology

**Examples of Disciplines: Social Sciences and Other Sciences Fields of R&D**

**8. Social Sciences**

**1. Anthropology (2J5)**

Cultural anthropology  
Medical anthropology  
Physical and biological anthropology

**2. Economics (2J1)**

Agricultural economics  
Applied economics  
Business development  
Development economics and international  
development  
Econometrics and quantitative economics  
Industrial economics

International economics  
Labor economics  
Managerial economics  
Natural resources economics  
Public finance and fiscal policy

**3. Political Science and  
Government (2J2)**

Comparative government  
Government  
Legal systems  
Political economy  
Political science  
Political theory

**3. Sociology, Demography, and  
Population Studies (2J3)**

Comparative and historical sociology  
Complex organizations  
Cultural and social structure  
Demography and population studies  
Group interactions  
Rural sociology  
Social problems and welfare theory  
Sociology

**4. Other social sciences (2J4)**

Archaeology  
Area, ethnic, cultural, gender, and  
group studies

Cartography  
City, urban, community and regional  
planning  
Criminal science and corrections  
Criminology  
Geography  
Gerontology, social sciences  
History, including history and philosophy  
of science & technology  
International relations and national  
security studies  
Linguistics  
Public policy analysis  
Regional studies  
Urban studies, affairs

**9. Other Sciences (2K)**

Use this category for R&D that involves at least one S&E field (A–H) if it is impossible to report multidisciplinary or interdisciplinary R&D expenditures in specific field

**Examples of Disciplines: Non-Science & Engineering Fields of R&D**

<p><b>10. Non-S&amp;E Fields</b></p> <p><b>1. Business and Management (2M)</b>          Business administration          Business management          Business, managerial economics          Management information systems and services          Marketing management and research</p> <p><b>2. Communication and Communication Technologies (2L3)</b>          Communication and media studies          Communications technologies          Journalism          Radio, television, and digital communication</p> <p><b>3. Education (2N)</b>          Education administration and supervision          Education research          Teacher education, specific levels and methods          Teaching fields</p>	<p><b>4. Humanities (2L3)</b>          English language and literature, letters          Foreign languages and literature          Humanities, general          Liberal arts and sciences          Philosophy and religious studies          Theology and religious vocations</p> <p><b>5. Law (2O)</b>          Law          Legal studies</p> <p><b>6. Social Work (2P1)</b>  <b>(This is not the same field as Social Sciences.)</b>          (no specific examples)</p>	<p><b>7. Visual and Performing Arts (2L1)</b>          Drama, theater arts, stagecraft          Film, video, and photographic arts          Fine arts, studio arts          Music</p>	<p><b>8. Other non-S&amp;E fields (2P2)</b>          Architecture          Family, consumer sciences and human sciences          Landscape architecture          Military technology and applied science          Parks, sports, recreation, leisure and fitness          Public administration and public affairs          Other Non-S&amp;E fields that cannot be classified using the fields listed in this Discipline (Non S&amp;E).</p> <p>Also, use this category for R&amp;D that involves multiple Non-S&amp;E fields if it is impossible to report multidisciplinary or interdisciplinary R&amp;D expenditures in specific fields.</p>
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