

# NORTH DAKOTA UNIVERSITY SYSTEM

## PROCEDURES MANUAL

**Subject:** STUDENT AFFAIRS

**Effective:** February 3, 2010

**Procedure:** 508.1.1 Science, Technology, Engineering, and Mathematics (STEM) Occupations Student Loan Program

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**NOTE: This program was formerly administered under the title “Technology Occupations Student Loan Program.”**

The intent of this program is to reduce student loan indebtedness for individuals who have graduated in a STEM related field and been employed in a STEM occupation in North Dakota for one year.

The number of funded applicants is limited and contingent upon legislative appropriations; therefore, not all qualified applicants are assured funding. All qualified applicants for this Program will be considered in priority order as defined in Section 3.

The Bank of North Dakota is responsible for applying loan forgiveness payments for funded recipients by July 30<sup>th</sup> of each year. **The NDUS will notify all funded recipients of their award by July 30<sup>th</sup> of each year; no notice will be sent to applicants not funded.**

Funding recipients are eligible to receive up to \$1,500 per year in continued loan forgiveness for each year they are employed in an approved STEM occupation in North Dakota, subject to a maximum of 48 months of eligible employment. Individuals must apply or re-apply annually for new or continued funding.

### **Section 1 – Qualifications**

To qualify for the STEM Occupations Student Loan Program, an applicant:

- a. Must have graduated from a board-approved college;
- b. Must have successfully completed a board-approved STEM-related program;
- c. Must have maintained at least a cumulative 2.5 grade point average based on a 4.0 grading system, at a board-approved college;
- d. Must have a student loan with the Bank of North Dakota or other participating lender and not be in default on that student loan;
- e. Following graduation, must have been employed in a board-approved STEM occupation for 12 months’ employment in North Dakota beginning at least by

July 1 of the previous year or, at least a 9-month teaching contract on a full time basis in a school district or nonpublic (private) school in the state; and

- f. In order to receive continued funding, must continue to meet all qualifications.

## **Section 2 – Terms and Definitions**

- a. **Board-approved college** means a postsecondary institution recognized by the U.S. Department of Education and accredited by regional, national, professional or specialized accrediting bodies.
- b. **Board-approved STEM related program** means programs listed on Table 1—STEM Program Areas and Codes. These are broadly based upon North Dakota’s targeted industries and the national Science and Mathematics Access to Retain Talent (SMART) grant program eligibility with the categories defined by the National Center for Education Statistics’ Classification of Instructional Programs.
- c. **STEM Job Occupations and Codes** means the STEM related Department of Labor job classifications as found in Table 2—STEM Job Occupations and Codes. A degree from Table 1 is required for Table 2 occupations to qualify.
- d. **Cumulative grade point average** means grade point average at graduation using a 4.0 grading scale (no rounding).
- e. **Default** means failure to repay a loan according to the terms agreed to when you signed a promissory note. Default may also mean failure to submit requests for deferment or cancellation on time.
- f. **Student Loan** means Federal Family Education Loan (FFEL) – Stafford subsidized, unsubsidized and FFEL Consolidated loans as well as the Dakota Education Alternative Loan (DEAL) obtained through the Bank of North Dakota as a lender, William D. Ford Federal Direct Loan – subsidized and unsubsidized loans, Federal Perkins Loan, FFEL or William D. Ford Federal Direct Consolidated Loans.
- g. **STEM** is an acronym for Science, Technology, Engineering, and Mathematics programs.

## **Section 3 –STEM Occupations Student Loan Program Procedures**

- a. Applications for this program may be obtained by: (1) calling the NDUS at (701) 328-4114; (2) writing the NDUS at 600 East Boulevard Avenue – Dept. 215, Bismarck, ND 58505-0230; or (3) accessing the NDUS web site at [www.ndus.edu](http://www.ndus.edu) and clicking on Student and Parent Information/Financial Aid.

**Applications will not be accepted prior to May 1.** A completed application must be received in the NDUS **no later than June 30.** Applications should be mailed, faxed or delivered to: Director of Financial Aid, NDUS, 600 East Boulevard Avenue – Dept. 215, Bismarck, ND 58505-0230, Fax (701) 328-2961.

A completed application **must** include a statement signed by the personnel director or CEO of the applicant's employer verifying that the applicant is employed full-time in one of the defined STEM occupations and the length of employment.

- b. Completed applications will be considered in priority order as follows:
- 1) Priority will be given first to the previous year program funded recipients who were continuously employed in an approved STEM occupation;
  - 2) Secondly, priority will be given to prior year funding recipients who were employed in an approved STEM occupation; and
  - 3) Finally, new program applicants will be funded.
- If available funding is sufficient to fund some but not all eligible applications in a priority category, funding shall be allocated based on date of receipt by the NDUS of completed applications, beginning with those received on (but not before) May 1, continuing with those received May 2, and so on, to the extent funds are available.

Summary of forms to be completed and returned to NDUS office:

1. Application
2. Final college transcript that reflects degree earned and the date received (attach copy for verification purposes)

Questions about the program and procedures for making application should be directed to:

Financial Aid Director  
North Dakota University System  
600 East Boulevard Avenue – Dept. 215  
Bismarck, ND 58505-0230  
Phone: Gina Padilla at (701) 328-2964 or Peggy Wipf at (701) 328-4114

**REFERENCE:** SBHE Policy 508.1

**HISTORY:** Chancellor's Cabinet Meeting, November 14, 2001  
*Editorial changes made 1/15/02*  
*Editorial changes made 3/13/02*  
Chancellor's Cabinet reviewed suggested changes, listserv message sent October 21, 2002. Amendments reviewed and approved by Chancellor, October 25, 2002.  
Chancellor's Cabinet Meeting, September 2003.  
Chancellor's Cabinet Meeting, November 2004.  
Chancellor's Cabinet Meeting, August 18, 2005.  
Chancellor's Cabinet Meeting, January 11, 2007.  
Chancellor's Cabinet Meeting, February 14, 2008.  
Chancellor's Cabinet Meeting, March 19, 2008.  
Chancellor's Cabinet Meeting, March 12, 2009.  
Chancellor's Cabinet Meeting, February 3, 2010.

**The Vital Link to a Brighter Future**

## Application for STEM Occupations Student Loan Forgiveness Program

Application year: May 1, 2010 - June 30, 2010

**Note:** This program was formerly administered under the title “Technology Occupations Student Loan Forgiveness program.”

- Follow instructions carefully
- Print or type
- Disclosure of your Social Security number is voluntary. Social Security numbers are used as an individual ID number for record keeping and administrative purposes. If you do not disclose your Social Security number, an individual ID number will be assigned. Failure to provide a social security number may cause delays in administrative services such as financial aid processing.
- Questions about the program or procedures for making application should be directed to Gina Padilla at 701.328.2964 or Peggy Wipf at 701.328.4114.

### General Information

Name (Last, First, Middle Initial)	Social Security No.	Daytime Phone No.
Present Mailing Address	City	State/Zip Code
Permanent Mailing Address (if different)	City	State/Zip Code

### Education

<p><b>Did you</b> graduate from a campus STEM related major as defined in <b>Table 1</b>?    <input type="checkbox"/> Yes    <input type="checkbox"/> No</p> <p>• <b>If yes, the Program CIP Code for that major is:</b>    _ _ . _ _ _ _ _</p>
<p>List STEM Job Occupation Code (<b>Reference Table 2</b>):    _ _ - _ _ _ _ _</p> <p>A degree from Table 1 is required for Table 2 occupations to qualify.</p>
<p><b>Did you</b> have a cumulative grade point average of at least 2.5 on a 4.0 scale in your college studies?</p> <p><input type="checkbox"/> Yes    <input type="checkbox"/> No    (<b>Attach copy of final college transcript</b>)</p>

### Loan Information

<p><b>Do you</b> have an outstanding student loan obtained through the Bank of North Dakota as a lender or other participating lender?    <input type="checkbox"/> Yes    <input type="checkbox"/> No</p> <p>• <b>If yes, indicate which loan you wish to have reduced under this program: (check only one)</b></p>	
<p><input type="checkbox"/> FFEL Stafford (subsidized)</p> <p><input type="checkbox"/> FFEL Stafford (unsubsidized)</p> <p><input type="checkbox"/> FFEL Consolidated Loan</p> <p><input type="checkbox"/> Dakota Educational Alternative Loan (DEAL)</p>	<p><input type="checkbox"/> William D. Ford Federal Direct Loan (subsidized)</p> <p><input type="checkbox"/> William D. Ford Federal Direct Loan (unsubsidized)</p> <p><input type="checkbox"/> William D. Ford Federal Direct Consolidated Loan</p> <p><input type="checkbox"/> Federal Perkins Loan</p>
Amount owed on this loan:	as of : (Date)

**If approved,** I wish to have my loan forgiveness payment sent to the following holder of my student loan:

Name of Financial Institution	Phone No.
Address	City
	State/Zip Code

### Statement of Certification an Authorization to be Completed by Applicant

I hereby certify that the information contained on this application is true and correct. I understand that I have the specific responsibility for applying for the STEM Occupations Student Loan Program **each year**. I also give my employer permission to release to the North Dakota University System any information that may be needed to verify the contents of my application, and for the North Dakota University System to share this information with the Bank of North Dakota or other participating lender to process payment of my outstanding loan.

\_\_\_\_\_  
**Signature of Applicant**

\_\_\_\_\_  
**Date**

### Statement of Certification by Personnel Director and/or CEO of Company

I hereby certify that \_\_\_\_\_ (name of applicant) with social security number of \_\_\_\_\_ was employed full time with \_\_\_\_\_ (name and location of company in North Dakota) during the period of \_\_\_\_\_ (list complete dates of employment, e.g. June 1, 2009 - May 31, 2010) in an occupation which can be classified as a STEM job occupation SOC code number \_\_\_ - \_\_\_ as defined in Table 2.

\_\_\_\_\_  
Printed **name and title** of authorized official

\_\_\_\_\_  
Daytime Phone Number

\_\_\_\_\_  
**Signature of authorized official**

\_\_\_\_\_  
**Date**

**Return application, certifications, and transcript to:**

**STEM Occupations Loan Forgiveness  
North Dakota University System  
600 E Boulevard Ave Dept 215  
Bismarck ND 58505-0230**

## North Dakota University System - Table 1 STEM Program Areas and Codes List of Active Programs 2009

(Derived from 2000 Draft CIP's, United States Department of Education)

<u>CIP</u>	<u>Program Areas</u>	<u>CIP</u>	<u>Program Areas</u>	<u>CIP</u>	<u>Program Areas</u>	<u>CIP</u>	<u>Program Areas</u>
01.0201	Agricultural Mechanization, General • Agricultural Systems Management – NDSU	03.0508	Urban Forestry • Urban Forestry Technology – DCB	11.0401	Information Science/Studies • Information Science – UM • Virtual Business – MiSU	13.1309	Technology Teacher Education/ Industrial Arts Teacher Education • Technology Education – DSU, UND, VCSU
01.0205	Agricultural Mechanics and Equipment/Machine Technology • John Deere Technology – NDSCS	03.0601	Wildlife and Wildlands Science and Management • Fisheries and Wildlife Sciences – VCSU • Wildlife and Fisheries Technology – DCB	11.0501	Computer Systems Analysis/Analyst • Information Systems – UND	13.1311	Mathematics Teacher Education • Elementary Education/Mathematics – UND • Math Teacher Education – UM • Mathematics Education – DSU, JC, MaSU, MiSU, NDSU, VCSU
01.0401	Agricultural and Food Products Processing • Cereal Science – NDSU	04.0201	Architecture • Architecture – NDSU	11.0701	Computer Science • Computer Science – NDSU	13.1316	Science Teacher Education/General Science Teacher Education • Composite Science Education – VCSU • Comprehensive Science Education – NDSU • Earth Science Education – MiSU, NDSU • Physical Science Education – MiSU • Science Education – MiSU, UND • Science Teacher Education – DSU
01.0901	Animal Sciences, General • Animal and Range Sciences – NDSU	04.0401	Environmental Design/Architecture • Environmental Design – NDSU	11.0801	Web Page, Digital/Multimedia and Information Resources Design • Desktop & Web publishing – MiSU • Multimedia Technologies – RC • Web Page Development and Design – BSC	11.0901	Computer Systems Networking and Telecommunications • Computer Applications – CCCC • Computer Support Specialist – BSC • Information Technology - Network Engineering – DCB
01.1001	Food Science • Food Protection – NDSU • Food Science – NDSU	04.0601	Landscape Architecture • Landscape Architecture – NDSU	11.1002	System, Networking, and LAN/WAN Management/Manager • Computer Systems Specialist – WSC	11.1004	Web/Multimedia Management and Webmaster • Information Technology - Web Master – DCB
01.1102	Agronomy and Crop Science • Plant Sciences – NDSU	11.0101	Computer and Information Sciences, General • Computer Information Systems – MaSU, NDSCS, UM, VCSU • Computer Science – DSU, JC, MiSU, UND	11.9999	Computer and Information Sciences and Support Services, Other • Computer Information System (BAS) – MaSU • Information Technology - Web Design – DCB	13.0501	Educational/Instructional Media Design • Instructional Design & Technology – UND
01.1103	Horticultural Science • Horticulture – NDSU	11.0103	Information Technology • Enterprise Application – VCSU • Information Technology – SBC	13.1309	Technology Teacher Education/ Industrial Arts Teacher Education • Education – VCSU		
01.1105	Plant Protection and Integrated Pest Management • Plant Protection – NDSU	11.0199	Computer and Information Sciences, Other • Computer Systems Technology – DCB				
01.1201	Soil Science and Agronomy, General • Soil Science – NDSU	11.0201	Computer Programming/Programmer, General • Computer Science Basic Programming – MiSU • Software Systems Design – RC				
03.0101	Natural Resources/Conservation, General • Environmental Technology-Natural Resource Management – DCB	11.0301	Data Processing and Data Processing Technology/ Technician • Computer Technology Management – DSU • Information Processing Technician – WSC • Information Technology – MaSU				
03.0103	Environmental Studies • Earth System Science and Policy – UND						
03.0104	Environmental Science • Environmental Science – FBCC, SBC						
03.0201	Natural Resources Management and Policy • Natural Resources Management – CCCC, NDSU						

• Indicates programs known to exist in North Dakota. Students graduating from comparable programs in other states are eligible when students meet North Dakota residency and other requirements.

Acronyms: BSC = Bismarck State College, DCB = Dakota College at Bottineau, DSU = Dickinson State University, FBCC = Fort Berthold Community College, JC = Jamestown College, LRSC = Lake Region State College, MaSU = Mayville State University, MiSU = Minot State University, NDSCS = North Dakota State College of Science, NDSU = North Dakota State University, RC = Rasmussen College, TMCC = Turtle Mountain Community College, UM = University of Mary, UTTC = United Tribes Technical College, UND = University of North Dakota, VCSU = Valley City State University, WSC = Williston State College

<u>CIP</u>	<u>Program Areas</u>	<u>CIP</u>	<u>Program Areas</u>	<u>CIP</u>	<u>Program Areas</u>	<u>CIP</u>	<u>Program Areas</u>
13.1329	Physics Teacher Education <ul style="list-style-type: none"> <li>Physical Science Education – MaSU</li> <li>Physics Education – MiSU, NDSU</li> </ul>	14.3601	Manufacturing Engineering <ul style="list-style-type: none"> <li>Manufacturing Engineering – NDSU</li> </ul>	15.0503	Energy Management and Systems Technology/Technician <ul style="list-style-type: none"> <li>Energy Technician – SBC</li> </ul>	26.0101	Biology/Biological Sciences, General <ul style="list-style-type: none"> <li>Biology – DSU, JC, MaSU, MiSU, NDSU, UM, VCSU</li> <li>Biology/Pre-Health – UND</li> </ul>
14.0101	Engineering, General <ul style="list-style-type: none"> <li>Engineering – NDSU</li> <li>Engineering Science – UM</li> </ul>	14.3801	Surveying Engineering <ul style="list-style-type: none"> <li>Environmental Technology-Geographic Information Systems – DCB</li> </ul>	15.0506	Water Quality and Wastewater Treatment Management and Recycling Technology/Technician <ul style="list-style-type: none"> <li>Environmental Technology - Water Management – DCB</li> <li>Water Quality Technology – DCB</li> </ul>	26.0202	Biochemistry <ul style="list-style-type: none"> <li>Biochemistry – JC, NDSU, UND</li> </ul>
14.0301	Agricultural/Biological Engineering and Bioengineering <ul style="list-style-type: none"> <li>Agricultural &amp; Biosystems Engineering – NDSU</li> </ul>	14.3901	Geological/Geophysical Engineering <ul style="list-style-type: none"> <li>Geological Engineering – UND</li> </ul>	15.0507	Environmental Engineering Technology/Environmental Technology <ul style="list-style-type: none"> <li>Environmental Technology-Laboratory &amp; Field Technician – DCB</li> </ul>	26.0210	Biochemistry/Biophysics and Molecular Biology <ul style="list-style-type: none"> <li>Biochemistry &amp; Molecular Biology – NDSU</li> </ul>
14.0701	Chemical Engineering <ul style="list-style-type: none"> <li>Chemical Engineering – UND</li> </ul>	14.9999	Engineering, Other <ul style="list-style-type: none"> <li>Engineering – UND</li> </ul>	15.0612	Industrial Technology/Technician <ul style="list-style-type: none"> <li>Industrial Technology – UND</li> <li>Process Plant Technology – BSC</li> </ul>	26.0301	Botany/Plant Biology <ul style="list-style-type: none"> <li>Botany – NDSU</li> </ul>
14.0801	Civil Engineering, General <ul style="list-style-type: none"> <li>Civil Engineering – NDSU, UND</li> </ul>	15.0000	Engineering Technology/General <ul style="list-style-type: none"> <li>Engineering Technician – BSC</li> </ul>	15.0613	Manufacturing Technology/Technician <ul style="list-style-type: none"> <li>Automated Manufacturing Technician – NDSCS</li> </ul>	26.0305	Plant Pathology/Phytopathology <ul style="list-style-type: none"> <li>Plant Pathology – NDSU</li> </ul>
14.0899	Civil Engineering, Other <ul style="list-style-type: none"> <li>Materials &amp; Nanotechnology – NDSU</li> </ul>	15.0101	Architectural Engineering Technology/Technician <ul style="list-style-type: none"> <li>Architectural Drafting &amp; Estimating Technology – NDSCS</li> </ul>	15.0699	Industrial Production Technologies/Technicians, Other <ul style="list-style-type: none"> <li>Power Plant Technology – BSC</li> </ul>	26.0403	Anatomy <ul style="list-style-type: none"> <li>Anatomy – UND</li> </ul>
14.0901	Computer Engineering, General <ul style="list-style-type: none"> <li>Computer Engineering – NDSU</li> </ul>	15.0201	Civil Engineering Technology/Technician <ul style="list-style-type: none"> <li>Civil Engineering &amp; Surveying Technology – NDSCS</li> </ul>	15.0701	Occupational Safety and Health Technology/Technician <ul style="list-style-type: none"> <li>Occupational Safety &amp; Environmental Health – UND</li> </ul>	26.0406	Cell/Cellular and Molecular Biology <ul style="list-style-type: none"> <li>Cellular &amp; Molecular Biology – NDSU</li> </ul>
14.0903	Computer Software Engineering <ul style="list-style-type: none"> <li>Software Engr – NDSU</li> </ul>	15.0303	Electrical, Electronic and Communications Engineering Technology/Technician <ul style="list-style-type: none"> <li>Electric Power Technology – BSC</li> <li>Electrical Transmission Systems Technology – BSC</li> <li>Electronics/Telecommunications Technology – BSC</li> </ul>	15.0903	Petroleum Technology/Technician <ul style="list-style-type: none"> <li>Petroleum Production Technology – WSC</li> </ul>	26.0502	Microbiology, General <ul style="list-style-type: none"> <li>Microbiology – NDSU</li> </ul>
14.1001	Electrical, Electronics and Communications Engineering <ul style="list-style-type: none"> <li>Electrical &amp; Comp Engr – NDSU</li> <li>Electrical Engineering – NDSU, UND</li> </ul>	15.0399	Electrical and Electronic Engineering Technologies/Technicians <ul style="list-style-type: none"> <li>Electrical Technology – NDSCS</li> <li>Electronic Technology – NDSCS</li> </ul>	15.1001	Construction Engineering Technology/Technician <ul style="list-style-type: none"> <li>Construction Mgmt Tech – NDSCS</li> </ul>	26.0503	Medical Microbiology and Bacteriology <ul style="list-style-type: none"> <li>Microbiology – UND</li> </ul>
14.1401	Environmental/Environmental Health Engineering <ul style="list-style-type: none"> <li>Environmental Engineering – NDSU</li> <li>Environmental Geoscience – UND</li> </ul>	15.0499	Electromechanical & Instrumentation and Maintenance Technologies/Technicians, Other <ul style="list-style-type: none"> <li>Instrumentation and Control Technologies – BSC</li> </ul>	15.1102	Surveying Technology/Surveying Technician – BSC <ul style="list-style-type: none"> <li>Geographic Information System Technician – BSC</li> </ul>	26.0701	Zoology/Animal Biology <ul style="list-style-type: none"> <li>Zoology – NDSU</li> </ul>
14.1801	Materials Engineering <ul style="list-style-type: none"> <li>Materials &amp; Nanotechnology – NDSU</li> </ul>	15.0501	Heating, Air Conditioning and Refrigeration Technology/Technician (ACH/ACR/ACHR/HRAC/HVAC/AC Technology) <ul style="list-style-type: none"> <li>Heating, Ventilating, Air Conditioning &amp; Refrigeration Technology – NDSCS</li> <li>Refrigeration &amp; Air Conditioning Technology – NDSCS</li> </ul>	15.1401	Nuclear Engineering Technology/Technician <ul style="list-style-type: none"> <li>Nuclear Power Technology – BSC</li> </ul>	26.0702	Entomology <ul style="list-style-type: none"> <li>Entomology – NDSU</li> </ul>
14.1901	Mechanical Engineering <ul style="list-style-type: none"> <li>Mechanical Engineering – NDSU,UND</li> </ul>			15.9999	Engineering Technologies/Technicians, Other <ul style="list-style-type: none"> <li>Energy Technology – FBCC</li> <li>Nanoscience Technology – NDSCS</li> </ul>	26.0709	Wildlife Biology <ul style="list-style-type: none"> <li>Fisheries &amp; Wildlife Biology – UND</li> </ul>
14.3301	Construction Engineering <ul style="list-style-type: none"> <li>Construction Engineering – NDSU</li> </ul>			26.0101	Biology/Biological Sciences, General <ul style="list-style-type: none"> <li>Biological Sciences – NDSU</li> </ul>	26.0801	Genetics, General <ul style="list-style-type: none"> <li>Genomics and Bioinformatics – NDSU</li> </ul>
14.3501	Industrial Engineering <ul style="list-style-type: none"> <li>Industrial &amp; Manufacturing Engr – NDSU</li> <li>Industrial Engineering &amp; Management – NDSU</li> </ul>					26.0910	Pathology/Experimental Pathology <ul style="list-style-type: none"> <li>Molecular Pathogenesis – NDSU</li> </ul>
						26.1001	Pharmacology <ul style="list-style-type: none"> <li>Pharmacology, Physiology and Therapeutics – UND</li> </ul>
						26.1201	Biotechnology <ul style="list-style-type: none"> <li>Biotechnology – NDSU</li> </ul>
						26.1305	Environmental Biology <ul style="list-style-type: none"> <li>Environmental &amp; Conservation Sciences – NDSU</li> </ul>

• Indicates programs known to exist in North Dakota. Students graduating from comparable programs in other states are eligible when students meet North Dakota residency and other requirements.

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<u>CIP</u>	<u>Program Areas</u>	<u>CIP</u>	<u>Program Areas</u>	<u>CIP</u>	<u>Program Areas</u>	<u>CIP</u>	<u>Program Areas</u>
26.9999	Biological and Biomedical Sciences, Other • Science – FBCC • Tribal Environmental Science – UTTC	46.0303	Lineworker • Lineworker, Electrical – BSC	48.0508	Welding Technology/Welder • Welding Technology – NDSCS	51.1004	Clinical/Medical Laboratory Technician • Clinical Laboratory Technician – BSC • Medical Laboratory Technician – RC
27.0101	Mathematics, General • Mathematics – DSU, FBCC, JC, MaSU, MiSU, NDSU, UM, UND, VCSU	47.0101	Electrical/Electronics Equipment Installation & Repair, General • Electrical Wiring – UTTC	49.0101	Aeronautics/Aviation/Aerospace Science and Technology, General • Aeronautical Studies – UND • Aviation – UND	51.1005	Clinical Laboratory Science/Medical Technology/Technologist • Clinical Laboratory Science – JC, MiSU, NDSU, UM, UND • Clinical Laboratory Science Management – UND • CLS Clinical Chemistry/Urinalysis – UND • CLS Hematology/Homeostasis – UND • CLS Immunohematology – UND • CLS Microbiology – UND • Medical Technology – JC
27.0301	Applied Mathematics • Applied Math, General – JC	47.0104	Computer Installation and Repair Technology/Technician • Simulator Maintenance Technician – LRSC	49.0102	Airline/Commercial/Professional Pilot and Flight Crew • Commercial Aviation – UND	51.1099	Clinical/Medical Laboratory Science and Allied Professions, Other • Phlebotomy Technician – BSC
27.0501	Statistics, General • Applied Statistics – NDSU • Statistics – NDSU	47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician • Heating, Ventilation and Air Conditioning – BSC • Mechanical Systems – NDSCS • Plumbing – FBCC	49.0104	Aviation/Airway Management and Operations • Airport Management – UND • Aviation Management – UND • Aviation Systems Management – UND	52.0209	Transportation/Transportation Management • Transportation & Logistics – NDSU
30.0101	Biological and Physical Sciences • Math/Science Composite – UM	47.0303	Industrial Mechanics and Maintenance Technology • Mechanical Maintenance Technology – BSC	49.0105	Air Traffic Controller • Air Traffic Control – UND	52.1201	Management Information Systems, General • Information Systems – MiSU • Information Technologies – LRSC • Information Technology Management – RC • Management Information Science – JC • Management Information Systems – MiSU, NDSU, UM
30.1101	Multi/Interdisciplinary Studies • Gerontology – NDSU	47.0604	Automobile/Automotive Mechanics Technology/Technician • Automotive Service Technology – UTTC • Automotive Technology – BSC, CCCC, LRSC, NDSCS, WSC	49.0108	Flight Instructor • Flight Education – UND	52.1299	Management Information Systems and Services, Other (some qualify) • Applied Business Information Technology – MiSU • Information Systems Management – RC • Knowledge Management – MiSU
40.0101	Physical Sciences • Physical Science – MiSU, UND	47.0605	Diesel Mechanics Technology/Technician • Caterpillar Dealer Service Technician – NDSCS • Diesel Technology – LRSC, NDSCS, WSC	49.0199	Air Transportation, Other (some qualify) • Space Studies – UND		
40.0401	Atmospheric Sciences and Meteorology, General • Atmospheric Sciences – UND • Atmospheric Studies – UND	47.0606	Small Engine Mechanics and Repair Technology/Technician • Recreational Engines Technology – NDSCS	51.0904	Emergency Medical Technology/Technician (EMT Paramedic) • EMT Paramedic Technology – BSC		
40.0501	Chemistry, General • Chemistry – DSU, JC, MaSU, MiSU, NDSU, UND, VCSU	47.0699	Vehicle Maintenance and Repair Technologies, Other (some qualify) • Automotive & Diesel Master Technician – NDSCS	51.0907	Medical Radiologic Technology/Science - Radiation Therapist • Radiologic Technology – JC, MiSU		
40.0507	Polymer Chemistry • Coatings & Polymeric Materials – NDSU	48.0501	Machine Tool Technology/Machinist • Machinist and Toolmaker – NDSCS	51.0908	Respiratory Care Therapy/Therapist • Respiratory Care – NDSU, UM		
40.0601	Geology/Earth Science, General • Geology – MiSU, NDSU, UND	48.0508	Welding Technology/Welder • Welding – BSC • Welding & Basic Machining – LRSC	51.0909	Surgical Technology/Technologist • Surgical Technology – BSC		
40.0801	Physics, General • Physics – MiSU, NDSU, UND			51.0910	Diagnostic Medical Sonography/Sonographer and Ultrasound Technician		
41.0301	Chemical Technology/Technician • Science Technology – NDSCS			51.0911	Radiologic Technology/Science-Radiographer • Radiologic Sciences – NDSU • Radiologic Technology – UM		
41.9999	Science Technologies/Technicians, Other • Bio-fuels Technology – NDSCS • Nanoscience Technology – NDSCS			51.1002	Cytotechnology/Cytotechnologist • Cytotechnology – UND		
43.0106	Forensic Science and Technology • Forensic Science – UND						

• Indicates programs known to exist in North Dakota. Students graduating from comparable programs in other states are eligible when students meet North Dakota residency and other requirements.

Acronyms: BSC = Bismarck State College, DCB = Dakota College at Bottineau, DSU = Dickinson State University, FBCC = Fort Berthold Community College, JC = Jamestown College, LRSC = Lake Region State College, MaSU = Mayville State University, MiSU = Minot State University, NDSCS = North Dakota State College of Science, NDSU = North Dakota State University, RC = Rasmussen College, TMCC = Turtle Mountain Community College, UM = University of Mary, UTTC = United Tribes Technical College, UND = University of North Dakota, VCSU = Valley City State University, WSC = Williston State College

## North Dakota University System - Table 2. STEM Job Occupations and Codes

### A degree from Table 1 is required for Table 2 occupations to qualify

(Derived from <http://online.onetcenter.org/crosswalk/>)

<u>SOC</u>	<u>Occupation</u>	<u>SOC</u>	<u>Occupation</u>	<u>SOC</u>	<u>Occupation</u>	<u>SOC</u>	<u>Occupation</u>
11-3011	Administrative Services Managers	17-2011	Aerospace Engineers	19-1020	Biologists	25-1021	Computer Science Teachers, Postsecondary
11-3021	Computer and Information Systems Managers	17-2021	Agricultural Engineers	19-1021	Biochemists and Biophysicists	25-1022	Mathematical Science Teachers, Postsecondary
11-3071	Storage and Distribution Managers	17-2031	Biomedical Engineers	19-1022	Microbiologists	25-1031	Architecture Teachers, Postsecondary
11-3071	Transportation Managers	17-2041	Chemical Engineers	19-1023	Zoologists and Wildlife Biologists	25-1032	Engineering Teachers, Postsecondary
11-9011	Crop and Livestock Managers	17-2051	Civil Engineers	19-1029	Biological Scientists, All Other	25-1041	Agricultural Sciences Teachers, Postsecondary
11-9011	Nursery and Greenhouse Managers	17-2061	Computer Hardware Engineers	19-1030	Conservation Scientists and Foresters	25-1042	Biological Science Teachers, Postsecondary
11-9012	Farmers and Ranchers	17-2071	Electrical Engineers	19-1031	Conservation Scientists	25-1043	Forestry and Conservation Science Teachers, Postsecondary
11-9021	Construction Managers	17-2072	Electronics Engineers, Except Computer	19-1031	Range Managers	25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary
11-9041	Engineering Managers	17-2081	Environmental Engineers	19-1031	Park Naturalists	25-1052	Chemistry Teachers, Postsecondary
11-9121	Natural Sciences Managers	17-2111	Product Safety Engineers	19-1031	Soil and Water Conservationists	25-1053	Environmental Science Teachers, Postsecondary
11-9199	Managers, All Other	17-2111	Industrial Safety and Health Engineers	19-1032	Foresters	25-1054	Physics Teachers, Postsecondary
13-1051	Cost Estimators	17-2111	Fire-Prevention and Protection Engineers	19-1041	Epidemiologists	25-1071	Health Specialties Teachers, Postsecondary
13-1081	Logisticians	17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	19-1042	Medical Scientists, Except Epidemiologists	25-1081	Education Teachers, Postsecondary
15-0000	Computer and Mathematical Science Occupations	17-2112	Industrial Engineers	19-1099	Life Scientists, All Other	25-1194	Vocational Education Teachers, Postsecondary
15-1011	Computer and Information Scientists, Research	17-2121	Marine Engineers and Naval Architects	19-2011	Astronomers	25-2022	Middle School Teachers, Except Special and Vocational Education
15-1021	Computer Programmers	17-2121	Marine Engineers and Naval Architects	19-2012	Physicists	25-2023	Vocational Education Teachers, Middle School
15-1021	Computer Science Teachers, Postsecondary	17-2131	Materials Engineers	19-2021	Atmospheric and Space Scientists	25-2031	Secondary School Teachers, Except Special and Vocational Education
15-1031	Computer Software Engineers, Applications	17-2141	Mechanical Engineers	19-2031	Chemists	25-2032	Vocational Education Teachers, Secondary School
15-1032	Computer Software Engineers, Systems Software	17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	19-2032	Material Scientists	25-9011	Audio-Visual Collections Specialists
15-1041	Computer Support Specialists	17-2161	Nuclear Engineers	19-2041	Environmental Scientists and Specialists, Including Health	25-9031	Instructional Coordinators
15-1051	Computer Systems Analysts	17-2171	Petroleum Engineers	19-2042	Geoscientists, Except Hydrologists and Geographers	25-9099	Education, Training, and Library Workers, All Other
15-1061	Database Administrators	17-2199	Engineers, All Other	19-2043	Hydrologists	27-1014	Multi-Media Artists and Animators
15-1071	Computer Security Specialists	17-3021	Aerospace Engineering and Operations Technicians	19-2099	Physical Scientists, All Other	27-1024	Graphic Designers
15-1071	Network and Computer Systems Administrators	17-3022	Civil Engineering Technicians	19-3099	Social Scientists and Related Workers, All Other	29-1124	Radiation Therapists
15-1081	Network Systems and Data Communications Analysts	17-3023	Electrical Engineering Technicians	19-4011	Food Science Technicians	29-1126	Respiratory Therapists
15-1099	Computer Specialists, All Other	17-3023	Electrical and Electronic Engineering Technicians	19-4011	Agricultural Technicians	29-2011	Medical and Clinical Laboratory Technologists
15-2011	Actuaries	17-3023	Electronics Engineering Technicians	19-4011	Agricultural and Food Science Technicians	29-2012	Medical and Clinical Laboratory Technicians
15-2021	Mathematicians	17-3023	Electronics Engineering Technicians	19-4031	Chemical Technicians	29-2031	Cardiovascular Technologists and Technicians
15-2031	Operations Research Analysts	17-3024	Electro-Mechanical Technicians	19-4041	Geological and Petroleum Technicians	29-2032	Diagnostic Medical Sonographers
15-2041	Statisticians	17-3025	Environmental Engineering Technicians	19-4041	Geological and Petroleum Technicians	29-2033	Nuclear Medicine Technologists
15-2091	Mathematical Technicians	17-3026	Industrial Engineering Technicians	19-4051	Nuclear Technicians	29-2034	Radiologic Technologists
15-2099	Mathematical Science Occupations, All Other	17-3027	Mechanical Engineering Technicians	19-4051	Nuclear Monitoring Technicians		
17-1011	Architects, Except Landscape and Naval	17-3029	Engineering Technicians, Except Drafters, All Other	19-4051	Nuclear Equipment Operation Technicians		
17-1012	Landscape Architects	17-3031	Surveying Technicians	19-4091	Environmental Science and Protection Technicians, Including Health		
17-1021	Cartographers and Photogrammetrists	17-3031	Mapping Technicians	19-4092	Forensic Science Technicians		
17-1022	Surveyors	19-1011	Animal Scientists	19-4093	Forest and Conservation Technicians		
		19-1012	Food Scientists and Technologists	19-4099	Life, Physical, and Social Science Technicians, All Other		
		19-1013	Soil and Plant Scientists				

<u>SOC</u>	<u>Occupation</u>	<u>SOC</u>	<u>Occupation</u>	<u>SOC</u>	<u>Occupation</u>	<u>SOC</u>	<u>Occupation</u>
29-2034	Radiologic Technologists and Technicians	49-9011	Mechanical Door Repairers	51-4041	Machinists	53-2021	Air Traffic Controllers
29-2034	Radiologic Technicians	49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	51-4111	Tool and Die Makers	53-2022	Airfield Operations Specialists
29-2041	Emergency Medical Technicians and Paramedics	49-9041	Industrial Machinery Mechanics	51-4121	Solderers and Brazers	53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians
29-2053	Psychiatric Technicians	49-9043	Maintenance Workers, Machinery	51-4121	Welders, Cutters, and Welder Fitters		
29-2054	Respiratory Therapy Technicians	49-9044	Millwrights	51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders		
29-2055	Surgical Technologists	49-9045	Refractory Materials Repairers, Except Brickmasons	51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic		
29-9011	Occupational Health and Safety Specialists	49-9051	Electrical Power-Line Installers and Repairers	51-4192	Lay-Out Workers, Metal and Plastic		
29-9012	Occupational Health and Safety Technicians	49-9062	Medical Equipment Repairers	51-4199	Metal Workers and Plastic Workers, All Other		
33-3031	Fish and Game Wardens	49-9069	Precision Instrument and Equipment Repairers, All Other	51-6062	Textile Cutting Machine Setters, Operators, and Tenders		
43-9011	Computer Operators	49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders		
43-9031	Desktop Publishers	49-9098	Helpers--Installation, Maintenance, and Repair Workers	51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders		
45-1011	First-Line Supervisors/Managers of Agricultural Crop and Horticultural Workers	51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	51-7041	Sawing Machine Setters, Operators, and Tenders, Wood		
45-1011	First-Line Supervisors/Managers of Animal Husbandry and Animal Care Workers	51-2022	Electrical and Electronic Equipment Assemblers	51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing		
45-2011	Agricultural Inspectors	51-2023	Electromechanical Equipment Assemblers	51-8011	Nuclear Power Reactor Operators		
45-2021	Animal Breeders	51-2031	Engine and Other Machine Assemblers	51-8012	Power Distributors and Dispatchers		
45-4011	Forest and Conservation Workers	51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	51-8013	Power Plant Operators		
47-1011	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	51-3092	Food Batchmakers	51-8031	Water and Liquid Waste Treatment Plant and System Operators		
47-4011	Construction and Building Inspectors	51-3093	Food Cooking Machine Operators and Tenders	51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers		
47-4021	Elevator Installers and Repairers	51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	51-9011	Chemical Equipment Operators and Tenders		
49-2011	Computer, Automated Teller, and Office Machine Repairers	51-4012	Numerical Tool and Process Control Programmers	51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders		
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders		
49-2091	Avionics Technicians	51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	51-9023	Mixing and Blending Machine Setters, Operators, and Tenders		
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment	51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders		
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders		
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders		
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-9141	Semiconductor Processors		
49-3011	Aircraft Mechanics and Service Technicians	51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	51-9196	Paper Goods Machine Setters, Operators, and Tenders		
49-3023	Automotive Master Mechanics	51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	53-1011	Aircraft Cargo Handling Supervisors		
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists			53-2011	Airline Pilots, Copilots, and Flight Engineers		
49-3041	Farm Equipment Mechanics			53-2012	Commercial Pilots		
49-3051	Motorboat Mechanics						
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics						
49-3092	Recreational Vehicle Service Technicians						