



**NEBRASKA'S**  
COORDINATING COMMISSION  
FOR POSTSECONDARY EDUCATION

# **Nebraska Career Scholarship Guidelines for Community College**

**Program Guidelines 2024-25 Grant Year**

**6/25/24**

PRELIMINARY

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## I. PURPOSE

The Nebraska Career Scholarship (NCS) Program is a collaboration between the Nebraska Coordinating Commission for Postsecondary Education (Commission) and Nebraska community colleges. The program provides scholarships to students pursuing degrees in programs of study leading to high-wage, high-skill, and high-demand careers.

## II. STATUTORY AUTHORITY AND RESPONSIBILITIES

The Nebraska Career Scholarship Act (NCS Act) is contained in Neb. Rev. Stat. §§ 85-3001 to 85-3006. Specific authorization for community college scholarships is found in Neb. Rev. Stat. § 85-3005. Responsibility for the community college scholarships was transferred from the Department of Economic Development to the Coordinating Commission for Postsecondary Education in LB1329 (2024).

A. Under the NCS Act, the responsibilities of the Commission are:

1. In collaboration with the community colleges, award Nebraska Career Scholarships to eligible community college students based on recommendations from the colleges.
2. Identify shortage areas and skilled trades that meet workforce needs and determine which programs of study address the shortage areas.
3. Periodically review and revise the identification of shortage areas and skilled trades that meet workforce needs.
4. Allocate funds appropriated for the program among the community colleges.
5. Report information on the NCS program to the Clerk of the Legislature and the Governor each year on or before December 1.

B. Under the NCS Act, the responsibilities of the community colleges are:

1. Determine the eligibility of scholarship recipients.
2. Receive and process applications for awards to individual scholarship recipients.
3. Disburse awards directly to eligible scholarship recipients during the fiscal year.
4. Collect information on each scholarship recipient and report to the CCPE.

## III. DEFINITIONS

1. Award year means the period beginning on August 1 through the following July 31.
2. Community college means a public postsecondary educational institution which is part of the community college system and includes all branches and campuses of such institution located within the State of Nebraska. It also includes a tribally controlled community college, as defined in Neb. Rev. Stat. § 85-1503(23), that chooses to participate.

3. Eligible program of study means a program of study offered by a community college in a shortage area or skilled trade that meet workforce needs identified by the Commission in consultation with the State Department of Education, the Department of Labor, the Department of Economic Development, and any advisory committee established by the Commission for such purpose.

4. First-time freshman means a student who enrolled in an eligible program of study, who has not previously been enrolled in a postsecondary institution within three years immediately preceding the application for a scholarship pursuant to the act, and who has not previously earned a postsecondary credential except as a dual credit or early-college high school student;

5. Nebraska Career Scholarship means a scholarship awarded under the Nebraska Career Scholarship Act or a scholarship awarded as a Nebraska Career Scholarship pursuant to LB380 (2021), or LB1008 (2020);

6. Reimbursable education unit (REU) has the meaning set forth in Neb. Rev. Stat. § 85-1503(19). REUs are certified annually by the Commission per Neb. Rev. Stat. § 85-1543(2) and Neb. Rev. Stat. § 85-2233(2);

7. Scholarship recipient means a student who has been awarded a Nebraska Career Scholarship; and

8. Transfer student means a student who has not previously earned a postsecondary credential and who has transferred into an eligible program of study (a) from another postsecondary institution or (b) from another program of study within the same postsecondary institution. A student that previously earned a postsecondary credential, but only as a dual-credit or early-college high school student, shall be considered a transfer student if such student transferred into an eligible program of study from another postsecondary institution or a program within the same postsecondary institution directly following such student's early-college high school enrollment.

## IV. AID CALCULATION AND DISBURSEMENT

### A. Aid Calculation:

The amount of aid to be allocated to each community college will be determined annually based on the following formula:

1. Base amount: Each community college will be allocated a base amount of \$100,000, except that each participating tribally controlled community college will be allocated a base amount of \$40,000. The base amount may be adjusted based on changes in appropriations.

2. Proportionate REU amount: In addition to the base amount, each community college will be allocated an amount of funding proportionate to its share of the total three-year average of certified reimbursable education units (REUs) for the three most recently concluded fiscal years concluding June 30 prior to the award year (e.g., for the award year beginning July 1, 2024, the three-year average REUs from fiscal years 2021, 2022, and 2023).

3. The Commission may adjust aid amounts based on historical college utilization of aid or additional factors such as retention rates, completion rates, and adequacy of required reports.
4. *Except for the award year beginning August 1, 2024*, the Commission will provide a preliminary amount of aid to be allocated to each community college by March 1 prior to the beginning of each award year (e.g., by March 1, 2025, for the award year beginning August 1, 2025). Final allocations are subject to appropriation.

#### B. Disbursement Process:

1. Community colleges may submit lists of recommended awards to the Commission at any time after July 1, except that no list may be submitted after June 1 in an award year (e.g., a final list of recommended awards must be submitted no later than June 1, 2025, for the award year beginning August 1, 2024, and ending July 31, 2025). Each list of recommended awards must include Last Name, First Name, Middle Initial, SSN, CIP Code, Program of Study Category, Amount of Scholarship, and other information required for the Commission to determine compliance with the Act.
2. Within thirty days after receiving recommendations, the Commission will review the recommended awards for compliance with the NCS Act and these guidelines and notify each community college of the approval or disapproval of recommended awards.
3. If awards are disapproved, the community college may resubmit the recommended list of awards to eligible students after modifying the recommendation to address the disapproved awards. The Commission will review the modified list of recommendations in a timely manner.
4. Upon receipt of the list of eligible students, and determination that all information is complete, the Commission will distribute funds appropriated to the Nebraska Career Scholarship to each eligible community college for direct disbursement to scholarship recipients.
5. Any award recipient who discontinues attendance before the end of the award year or becomes ineligible due to a change in major or inability to enroll in a selective-admission program or limited-enrollment program shall remit any award balance allowable to the community college pursuant to the college's withdrawal policy.
6. Award funds not awarded within the award year in which the funds were allocated shall be returned to the Commission by the community college at a time specified by the Commission.

#### **V. SCHOLARSHIP AMOUNT, DISTRIBUTION, AND ELIGIBLE USES**

1. A Career Scholarship award shall not exceed a maximum of \$15,000 per year. Financial need, as determined by the community college's financial aid officer based on a student's FAFSA, may be considered.
2. The Career Scholarship may be combined with other financial aid awards.
3. Each college will use its existing financial aid processes and policies to award the Career Scholarship.

4. Eligible uses of scholarship funds are tuition, fees, required tools and equipment (including books), room, and board.

## VI. ELIGIBLE PROGRAMS OF STUDY

### A. Identification Process for Shortage Areas and Skilled Trades

The Commission will consult with the Department of Education, the Department of Labor, and the Department of Economic Development to identify shortage areas and skilled trades that meet workforce shortages for the purpose of determining eligible programs of study.

- The Commission, in consultation with the aforementioned departments, will periodically review and revise the identification of shortage areas, skilled trades, and eligible programs of study.
- The Commission may convene an advisory group to assist in the identification of shortage areas, skilled trades, and eligible programs of study.
- Colleges may initiate requests for additions to lists of identified shortage areas, skilled trades, and eligible programs of study. The Commission will notify all community colleges of approved additions and post a current list on the Commission's website.

### B. Identified Occupations (Shortage Areas and Skilled Trades)

Identified occupations include those determined to be a shortage area or in-demand skilled trade related to the shortage areas. Shortage areas are defined within the Labor Availability Studies and Skills Gap Reports produced by the University of Nebraska-Lincoln Bureau of Business Research and the Nebraska Department of Labor. The reports identify misalignment between the area labor supply and demand and the future impact of those misalignments (or skills gaps) by using the number of recent graduates and occupational forecasts. Essentially, the reports identify jobs (occupations) for which there is more demand from employers than available workers. Related in-demand skilled trades were also identified and included in the list of occupations.

Identified occupations fall within the following categories:

1. Business, Financial & Administrative Operations
2. Computer & Technology Assistance
3. Architecture & Engineering
4. Healthcare Practitioners & Technical
5. Farming, Fishing, & Forestry
6. Construction & Extraction
7. Installation, Maintenance, & Repair
8. Production
9. Transportation & Material Moving

Please refer to Appendix A for a list of the specific occupations within these categories. More information on the 2018 Standard Occupation Classification (SOC) occupations can be found on the Bureau of Labor Statistics website at [https://www.bls.gov/soc/2018/major\\_groups.htm](https://www.bls.gov/soc/2018/major_groups.htm).

### C. Eligible Programs of Study

Eligible programs of study must provide a recognizable credential and regularly lead to a job within the identified occupations. Please refer to Appendix B for a list of programs titles that correspond to the identified occupations. Noncredit programs of study should be submitted to the Commission for approval with the following information: the recognized credential awarded, the occupational category the program falls under, and a reasonably related program title from Appendix B. The Commission will post a list eligible noncredit programs on its website as the list develops.

More information on the 2020 Classification of Instructional Programs (CIP) and the crosswalk from 2018 SOC to 2020 CIP can be found on the National Center for Education Statistics website at <https://nces.ed.gov/ipeds/cipcode/default.aspx?y=56>.

## **VII. STUDENT ELIGIBILITY**

### A. Eligible Scholarship Recipients Generally

1. Scholarship recipients must live in Nebraska while receiving a scholarship but may be recruited from outside of Nebraska.
2. Scholarship recipients are awarded Career Scholarships based on their enrollment in an eligible program of study.
3. Scholarship recipients may select another major and retain the scholarship award if the new program of study is an eligible program of study as defined in these guidelines.
4. Participation in the NSC program is capped at a maximum of three years.
5. Colleges may identify additional criteria for eligible scholarship recipients.

### B. Eligibility for an Initial Award

1. To be eligible for an initial award, a scholarship recipient must be a first-time freshman or a transfer student as defined in the NSC Act (see Part III Definitions in these *Guidelines*).
  - Prior participation in high school dual credit courses does not count as previous enrollment in a postsecondary institution.
  - Students who enroll in a fall term and enrolled in college for the first time in the prior summer term are eligible.
2. Additional eligibility for first-time students:
  - Students who enroll in a preprogram for a selective-admission eligible program are eligible for a scholarship in their first year; subsequent scholarships should only be awarded if the student is accepted into the eligible program of study.

- Students who have a future matriculation record for a limited-enrollment eligible program are eligible for a scholarship in their first year; subsequent scholarships should only be awarded if the student is accepted into the eligible program of study.

### C. Ongoing Scholarship Recipient Eligibility

#### 1. Renewals

- The Career Scholarship is automatically renewable if the scholarship recipient continues to meet eligibility requirements of the scholarship and remains eligible to enroll. To maintain ongoing eligibility in the program, scholarship recipients must maintain satisfactory academic standing, as defined in the college's published Standards of Progress.
- To maintain eligibility, scholarship recipients must maintain an adequate enrollment pace that will enable completion of the program of study within three years, in accordance with their educational plan.
- Students who received a scholarship by enrolling in a preprogram for a selective admission eligible program may only receive a subsequent scholarship if the student is accepted into the eligible program of study.
- Students who received a scholarship by enrolling with a future matriculation record for a limited enrollment eligible program may only receive a subsequent scholarship if the student is accepted into the eligible program of study.
- Colleges may identify additional criteria for the ongoing eligibility of scholarship recipients.
- Colleges are responsible for managing their annual allocations to ensure that they can cover the cost of automatic renewals and new scholarships.

#### 2. Career-Related Work Experience

- Each scholarship recipient enrolled in more than a one-semester or sixteen-credit-hour program of study must register with the appropriate Career or Employment Services office at their college and participate in a Nebraska-based internship, apprenticeship, clinical position, or employment in the field of study prior to their final term of the program of study.
- In order to receive disbursement of the scholarship for the final term, the scholarship recipient must have participated a career-related work experience. Colleges will document career-related work experiences for each scholarship recipient.

#### 3. Major Changes

- Scholarship recipients who change their major to one not included as an eligible program of study will no longer receive the scholarship beginning the following term.



#### 4. Dropouts and Stopouts

- Scholarship recipients who withdraw their enrollment in the college and/or an eligible program of study will no longer receive the scholarship beginning the following term. While not required by the Commission, as deemed appropriate by the college, the college may require scholarship recipients who dropout or stopout to return a portion of their scholarship to the college.

#### 5. Transfer Students

- Scholarship recipients are awarded Career Scholarships by the Commission based on application to and recommendation by an individual community college. Transfer students between Nebraska colleges who were awarded a scholarship at the sending college may receive a scholarship from the receiving college at the discretion of the receiving college and must follow the incoming college's scholarship application process.

### VIII. REPORTING

#### A. Use and Tracking of Cohorts

Reporting requires colleges to distinguish between scholarship recipient cohorts (students who received a first scholarship during the grant period) and the first-time, full-time cohort of students who entered the institution during the same fall term. Colleges will also need to be able to distinguish between the cohort's first-time students and transfer students. Additionally, colleges will need to be able to distinguish the term within the grant period in which the student first enrolled. Reporting for each grant period will include information on the current cohort of scholarship recipients and all first-time, full-time students in an entering fall cohort reported to IPEDS as well as information on every prior cohort of scholarship recipients and all first-time, full-time students in an entering fall cohort reported to IPEDS.

#### B. Scholarship Recipient Data Requirements

A report by the colleges on each cohort's scholarship recipients is due to the Commission by November 1 each year using the **#YEAR Career Scholarships – Community College Cohort Report.xls** spreadsheets provided by the Commission. This report will include the following information on each scholarship recipient: name; address; email address; social security number; program of study; program of study category; program of study credit status; the certificate/diploma/degree awarded; how the student met initial eligibility; date of program completion; whether they completed the program on time; a short description of their career-related work experience; their enrollment status and scholarship amounts per term; and year 2 and year 3 enrollment and scholarship status. The college must also retain this information for a minimum of five years after the scholarship recipient completes the program.

The Commission may collaborate with the Nebraska Department of Labor to track scholarship recipient employment in Nebraska or assign the responsibility to the colleges. In all cases, the Commission will not share sensitive personally identifiable information and reporting will be provided in aggregate form.

### C. Legislative Reporting

The NCS Act requires that the following information be reported to the Commission, which will in turn submit a report on the NCS Act to the Clerk of the Legislature and Governor by December 1 of each year. The report will include information on each cohort, using the **#YEAR Career Scholarships -- Community Colleges Legislative Report.xls** spreadsheets provided by the Commission, and is due to the Commission by November 1 each year. For the reports due November 1, 2024, the Commission will require submission of historical cohort data to establish trends. Future data submissions will not require duplicate submission of historical cohort data unless corrections or updates have been made.

The report includes metrics tracked by programs of study *aggregated into the corresponding approved occupation categories*:

1. Business, Financial & Administrative Operations
2. Computer & Technology Assistance
3. Architecture & Engineering
4. Healthcare Practitioners & Technical
5. Farming, Fishing, & Forestry
6. Construction & Extraction
7. Installation, Maintenance, & Repair
8. Production
9. Transportation & Material Moving

Additionally, the report requires data reported by credential type, including certificate programs, diploma programs, and degree programs.

**Legislative Requirement 1: The total number of students enrolled in the program in the immediately prior academic year and the total number of students enrolled in the program as of the most recent census date for the community college area (85-3005(6)(a)(i)).**

Reporting notes:

- Enrollment reflects total program enrollment, regardless of individual student scholarship eligibility.
- Enrollment could be duplicated headcount if a student is enrolled in more than one program category.
- Enrollment in for-credit programs includes number of students enrolled on October 15; enrollment in non-credit programs includes total students enrolled in programs that began within the fall term's beginning and end dates.
- This data will be reported by program category and credential type in Career Scholarships Community Colleges Legislative Report.xlsx.

To establish trends, specific data required for reports due November 1, 2024, includes:

- The number of students enrolled on October 15, 2020
- The number of students enrolled on October 15, 2021
- The number of students enrolled on October 15, 2022
- The number of students enrolled on October 15, 2023
- The number of students enrolled on October 15, 2024

**Legislative Requirement 2: The total number of scholarship recipients in the program as of the most recent census date for the community college area (85-3005(6)(a)(ii)).**

Reporting notes:

- Count of scholarship recipients should be deduplicated across terms and programs of study (if a scholarship recipient is enrolled in more than one program of study a primary program of study should be identified).
- This data will be reported by program category and credential type for each Cohort in Career Scholarships Community Colleges Legislative Report.xlsx.

To establish trends, specific data required for reports due November 1, 2024, includes:

- The number of NCS recipients enrolled on October 15, 2020
- The number of NCS recipients enrolled on October 15, 2021
- The number of NCS recipients enrolled on October 15, 2022
- The number of NCS recipients enrolled on October 15, 2023
- The number of NCS recipients enrolled on October 15, 2024

**Legislative Requirement 3: The first-to-second-year retention rate of new scholarship recipients for all eligible programs of study from the immediately prior academic year as compared to the community college's overall first-to-second-year retention rate as reported to IPEDS for the same year (85-3005(6)(b)).**

Reporting notes:

- Count and rates do not include transfer students.
- A scholarship recipient who is enrolled in an eligible program, even if the student changed their program of study, as of the census date of the first term of the following their cohort's grant period is considered retained.
- This data will be reported by credential type for each Cohort in Career Scholarships Community Colleges Legislative Report.xlsx.

To establish trends, specific data required for the reports due November 1, 2024, includes:

- The retention rate of 2021-22 first-time NCS recipients
- The retention rate of 2022-23 first-time NCS recipients
- The retention rate of 2023-24 first-time NCS recipients
- The retention rate of fall 2021 first-time students reported to IPEDS
- The retention rate of fall 2022 first-time students reported to IPEDS
- The retention rate of fall 2023 first-time students reported to IPEDS
- The difference in retention rates of fall 2021 NSC and all first-time students
- The difference in retention rates of fall 2022 NSC and all first-time students
- The difference in retention rates of fall 2023 NSC and all first-time students

**Legislative Requirement 4: The total number of first-time freshman scholarship recipients who complete the program of study by earning the certificate, diploma, or degree that signifies completion and a comparison of the on-time completion rate for scholarship recipients to the overall on-time completion rate for all first-time freshman students (85-3005(6)(c)).**

Reporting notes:

- On-time completion for this report means full-time and part-time students completing a for-credit program of study within 150% of normal time and/or completion of a non-credit certification.
- Only include students who are, or were, enrolled in programs that have reached the on-time completion definition above. For example, on-time completion for students seeking a degree is 6 semesters; those students/programs should not be included in the first or second report for that cohort as not enough time has elapsed for 6 semesters to have completed.
- The on-time completion rate should be calculated as the cohort's on-time completers divided by all students in the cohort (including students who drop out or stop out).
- Data includes only first-time students; it does not include transfer student.
- This data will be reported by credential type for each Cohort in Cohort in Career Scholarships Community Colleges Legislative Report.xlsx.

To establish trends, specific data required for the reports due November 1, 2024, includes:

- The number of 2021-22 first-time freshman NCS scholarship recipients who have completed their eligible program of study
- The number of 2022-23 first-time freshman NCS scholarship recipients who have completed their eligible program of study
- The number of 2023-24 first-time freshman NCS scholarship recipients who have completed their eligible program of study
- The on-time completion rate of 2021-22 first-time freshman NCS recipients who completed their eligible program of study
- The on-time completion rate of 2022-23 first-time freshman NCS recipients who completed their eligible program of study
- The on-time completion rate of 2023-24 first-time freshman NCS recipients who completed their eligible program of study
- The on-time completion rate of all 2021-22 first-time freshman who completed their eligible program of study
- The on-time completion rate of all 2022-23 first-time freshman who completed their eligible program of study
- The on-time completion rate of all 2023-24 first-time freshman who completed their eligible program of study
- The difference in on-time completion rates between 2021-22 first-time freshman NSC recipients and all first-time freshman who completed their eligible program of study
- The difference in on-time completion rates between 2022-23 first-time freshman NSC recipients and all first-time freshman who completed their eligible program of study
- The difference in on-time completion rates between 2023-24 first-time freshman NSC recipients and all first-time freshman who completed their eligible program of study

**Legislative Requirement 5: The number of scholarship recipients obtaining employment in the state within five fiscal quarters of completion of an eligible program of student using Department of Labor data (85-3005(6)(d)).**

Reporting notes:

- Data should include scholarship recipients who obtained a job in Nebraska within five quarters after the quarter in which they completed their program of study or as of September 30 each year, whichever is sooner.
- Due to the timing of the report, this may not include all program completers where five quarters after the quarter in which they completed the program of study have not passed.
- This data will be reported by credential type for each Cohort in Career Scholarships – Cohort # YEAR Report.xlsx, Report B tab.

Specific data required includes:

- The number of all scholarship recipients who completed an eligible program of study and obtained a job in Nebraska within five quarters after the quarter in which they completed their program of study.

PRELIMINARY

## APPENDIX A. Identified Shortage Area and Skilled Trade Occupations

### Business, Financial & Administrative Operations Occupations

<u>SOC code</u>	<u>Description</u>
13-1031	Claims Adjusters, Examiners, and Investigators
13-1051	Cost Estimators
13-1111	Management Analysts
13-2011	Accountants and Auditors
13-2072	Loan Officers
43-3011	Bill and Account Collectors
43-3031	Bookkeeping, Accounting, and Auditing Clerks

### Computer & Technology Assistance Occupations

<u>SOC code</u>	<u>Description</u>
15-1221	Computer and Information Research Scientists
15-1231	Computer Network Support Specialists
15-1232	Computer User Support Specialists
15-1251	Computer Programmers
15-1252	Software Developers
15-1253	Software Quality Assurance Analysts and Testers
15-1254	Web Developers
15-1255	Web and Digital Interface Designers
15-1299	Computer Occupations, All Other

### Architecture & Engineering Occupations

<u>SOC code</u>	<u>Description</u>
17-3011	Architectural and Civil Drafters
17-3012	Electrical and Electronics Drafters
17-3013	Mechanical Drafters
17-3019	Drafters, All Other
17-3021	Aerospace Engineering and Operations Technologists and Technicians
17-3022	Civil Engineering Technologists and Technicians
17-3023	Electrical and Electronic Engineering Technologists and Technicians
17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians
17-3025	Environmental Engineering Technologists and Technicians
17-3026	Industrial Engineering Technologists and Technicians
17-3027	Mechanical Engineering Technologists and Technicians
17-3028	Calibration Technologists and Technicians
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other
17-3031	Surveying and Mapping Technicians

### Healthcare Practitioners & Technical Occupations

<u>SOC code</u>	<u>Description</u>
29-1124	Radiation Therapists
29-1126	Respiratory Therapists
29-1141	Registered Nurses
29-2011	Medical and Clinical Laboratory Technologists
29-2012	Medical and Clinical Laboratory Technicians
29-2031	Cardiovascular Technologists and Technicians
29-2032	Diagnostic Medical Sonographers
29-2033	Nuclear Medicine Technologists

29-2034	Radiologic Technologists and Technicians
29-2035	Magnetic Resonance Imaging Technologists
29-2036	Medical Dosimetrists
29-2042	Emergency Medical Technicians
29-2043	Paramedics
29-2051	Dietetic Technicians
29-2052	Pharmacy Technicians
29-2053	Psychiatric Technicians
29-2055	Surgical Technologists
29-2056	Veterinary Technologists and Technicians
29-2057	Ophthalmic Medical Technicians
29-2061	Licensed Practical and Licensed Vocational Nurses
29-2072	Medical Records Specialists
29-2081	Opticians, Dispensing
29-2091	Orthotists and Prosthetists
29-2092	Hearing Aid Specialists
29-2099	Health Technologists and Technicians, All Other

### **Farming, Fishing, & Forestry Occupations**

<u>SOC code</u>	<u>Description</u>
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals

### **Construction & Extraction Occupations**

<u>SOC code</u>	<u>Description</u>
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers
47-2011	Boilermakers
47-2021	Brickmasons and Blockmasons
47-2022	Stonemasons
47-2031	Carpenters
47-2061	Construction Laborers
47-2073	Operating Engineers and Other Construction Equipment Operators
47-2111	Electricians
47-2152	Plumbers, Pipefitters, and Steamfitters
47-4011	Construction and Building Inspectors
47-4021	Elevator and Escalator Installers and Repairers

### **Installation, Maintenance, & Repair Occupations**

<u>SOC code</u>	<u>Description</u>
49-2011	Computer, Automated Teller, and Office Machine Repairers
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers
49-2091	Avionics Technicians
49-2092	Electric Motor, Power Tool, and Related Repairers
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles
49-2097	Audiovisual Equipment Installers and Repairers
49-2098	Security and Fire Alarm Systems Installers
49-3011	Aircraft Mechanics and Service Technicians
49-3023	Automotive Service Technicians and Mechanics

49-3031	Bus and Truck Mechanics and Diesel Engine Specialists
49-3041	Farm Equipment Mechanics and Service Technicians
49-3042	Mobile Heavy Equipment Mechanics, Except Engines
49-3043	Rail Car Repairers
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers
49-9041	Industrial Machinery Mechanics
49-9051	Electrical Power-Line Installers and Repairers
49-9052	Telecommunications Line Installers and Repairers
49-9071	Maintenance and Repair Workers, General

### **Production Occupations**

<u>SOC code</u>	<u>Description</u>
51-4041	Machinists
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
51-4111	Tool and Die Makers
51-4121	Welders, Cutters, Solderers, and Brazers

### **Transportation & Material Moving Occupations**

<u>SOC code</u>	<u>Description</u>
53-3032	Heavy and Tractor-Trailer Truck Drivers



## APPENDIX B. Program of Study 2020 CIP Codes and Titles Corresponding with Identified Shortage Areas and Skilled Trade Occupations

<u>CIP Code</u>	<u>Classification of Instructional Programs (CIP) Title</u>
01.0000	Agriculture, General.
01.0101	Agricultural Business and Management, General.
01.0106	Agricultural Business Technology/Technician.
01.0201	Agricultural Mechanization, General.
01.0204	Agricultural Power Machinery Operation.
01.0205	Agricultural Mechanics and Equipment/Machine Technology/Technician.
01.0207	Irrigation Management Technology/Technician.
01.0299	Agricultural Mechanization, Other.
01.0310	Apiculture.
01.8301	Veterinary/Animal Health Technology/Technician and Veterinary Assistant.
01.8399	Veterinary/Animal Health Technologies/Technicians, Other.
04.0901	Architectural Technology/Technician.
04.0902	Architectural and Building Sciences/Technology.
04.0999	Architectural Sciences and Technology, Other.
09.0702	Digital Communication and Media/Multimedia.
11.0101	Computer and Information Sciences, General.
11.0102	Artificial Intelligence.
11.0103	Information Technology.
11.0104	Informatics.
11.0105	Human-Centered Technology Design.
11.0199	Computer and Information Sciences, Other.
11.0201	Computer Programming/Programmer, General.
11.0202	Computer Programming, Specific Applications.
11.0203	Computer Programming, Vendor/Product Certification.
11.0204	Computer Game Programming.
11.0205	Computer Programming, Specific Platforms.
11.0299	Computer Programming, Other.
11.0301	Data Processing and Data Processing Technology/Technician.
11.0401	Information Science/Studies.
11.0501	Computer Systems Analysis/Analyst.
11.0701	Computer Science.
11.0801	Web Page, Digital/Multimedia and Information Resources Design.
11.0803	Computer Graphics.
11.0804	Modeling, Virtual Environments and Simulation.
11.0901	Computer Systems Networking and Telecommunications.
11.0902	Cloud Computing.
11.1001	Network and System Administration/Administrator.
11.1002	System, Networking, and LAN/WAN Management/Manager.
11.1003	Computer and Information Systems Security/Auditing/Information Assurance.
11.1004	Web/Multimedia Management and Webmaster.
11.1005	Information Technology Project Management.

11.1006	Computer Support Specialist.
13.0601	Educational Evaluation and Research.
13.0603	Educational Statistics and Research Methods.
13.0604	Educational Assessment, Testing, and Measurement.
13.0608	Institutional Research.
13.0699	Educational Assessment, Evaluation, and Research, Other.
14.0202	Astronautical Engineering.
14.0299	Aerospace, Aeronautical, and Astronautical/Space Engineering, Other.
14.0901	Computer Engineering, General.
14.0903	Computer Software Engineering.
14.1801	Materials Engineering.
14.1901	Mechanical Engineering.
14.3301	Construction Engineering.
14.3601	Manufacturing Engineering.
15.0000	Engineering Technologies/Technicians, General.
15.0001	Applied Engineering Technologies/Technicians.
15.0101	Architectural Engineering Technologies/Technicians.
15.0201	Civil Engineering Technologies/Technicians.
15.0303	Electrical, Electronic, and Communications Engineering Technology/Technician.
15.0304	Laser and Optical Technology/Technician.
15.0305	Telecommunications Technology/Technician.
15.0306	Integrated Circuit Design Technology/Technician.
15.0307	Audio Engineering Technology/Technician.
15.0399	Electrical/Electronic Engineering Technologies/Technicians, Other.
15.0401	Biomedical Technology/Technician.
15.0403	Electromechanical/Electromechanical Engineering Technology/Technician.
15.0404	Instrumentation Technology/Technician.
15.0405	Robotics Technology/Technician.
15.0406	Automation Engineer Technology/Technician.
15.0407	Mechatronics, Robotics, and Automation Engineering Technology/Technician.
15.0499	Electromechanical Technologies/Technicians, Other.
15.0501	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/Technician.
15.0506	Water Quality and Wastewater Treatment Management and Recycling Technology/Technician.
15.0507	Environmental/Environmental Engineering Technology/Technician.
15.0508	Hazardous Materials Management and Waste Technology/Technician.
15.0599	Environmental Control Technologies/Technicians, Other.
15.0607	Plastics and Polymer Engineering Technology/Technician.
15.0611	Metallurgical Technology/Technician.
15.0612	Industrial Technology/Technician.
15.0613	Manufacturing Engineering Technology/Technician.
15.0614	Welding Engineering Technology/Technician.
15.0615	Chemical Engineering Technology/Technician.
15.0616	Semiconductor Manufacturing Technology/Technician.
15.0617	Composite Materials Technology/Technician.
15.0699	Industrial Production Technologies/Technicians, Other.

- 15.0701 Occupational Safety and Health Technology/Technician.  
 15.0702 Quality Control Technology/Technician.  
 15.0703 Industrial Safety Technology/Technician.  
 15.0704 Hazardous Materials Information Systems Technology/Technician.  
 15.0705 Process Safety Technology/Technician.  
 15.0801 Aeronautical/Aerospace Engineering Technology/Technician.  
 15.0803 Automotive Engineering Technology/Technician.  
 15.0805 Mechanical/Mechanical Engineering Technology/Technician.  
 15.0806 Marine Engineering Technology/Technician.  
 15.0807 Motorsports Engineering Technology/Technician.  
 15.0899 Mechanical Engineering Related Technologies/Technicians, Other.  
 15.0901 Mining Technology/Technician.
- 15.1001 Construction Engineering Technology/Technician.  
 15.1102 Surveying Technology/Surveying.  
 15.1103 Hydraulics and Fluid Power Technology/Technician.  
 15.1201 Computer Engineering Technology/Technician.  
 15.1202 Computer/Computer Systems Technology/Technician.  
 15.1203 Computer Hardware Technology/Technician.  
 15.1204 Computer Software Technology/Technician.  
 15.1299 Computer Engineering Technologies/Technicians, Other.  
 15.1301 Drafting and Design Technology/Technician, General.  
 15.1302 CAD/CADD Drafting and/or Design Technology/Technician.  
 15.1303 Architectural Drafting and Architectural CAD/CADD.  
 15.1304 Civil Drafting and Civil Engineering CAD/CADD.  
 15.1305 Electrical/Electronics Drafting and Electrical/Electronics CAD/CADD.  
 15.1306 Mechanical Drafting and Mechanical Drafting CAD/CADD.  
 15.1307 3-D Modeling and Design Technology/Technician.  
 15.1399 Drafting/Design Engineering Technologies/Technicians, Other.  
 15.1401 Nuclear Engineering Technology/Technician.  
 15.1501 Engineering/Industrial Management.  
 15.1503 Packaging Science.  
 15.1701 Energy Systems Technology/Technician.  
 15.1702 Power Plant Technology/Technician.  
 15.1703 Solar Energy Technology/Technician.  
 15.1704 Wind Energy Technology/Technician.  
 15.1705 Hydroelectric Energy Technology/Technician.  
 15.1706 Geothermal Energy Technology/Technician.  
 15.1799 Energy Systems Technologies/Technicians, Other.
- 19.0501 Foods, Nutrition, and Wellness Studies, General.
- 26.0401 Cell/Cellular Biology and Histology.  
 26.1006 Environmental Toxicology.  
 26.1103 Bioinformatics.  
 26.1104 Computational Biology.
- 27.0601 Applied Statistics, General.
- 29.0303 Engineering Acoustics.

29.0306	Operational Oceanography.
29.0307	Undersea Warfare.
29.0401	Aerospace Ground Equipment Technology.
29.0402	Air and Space Operations Technology.
29.0409	Radar Communications and Systems Technology.
30.0801	Mathematics and Computer Science.
30.1601	Accounting and Computer Science.
30.1901	Nutrition Sciences.
30.3001	Computational Science.
30.3101	Human Computer Interaction.
30.3901	Economics and Computer Science.
30.4801	Linguistics and Computer Science.
30.7001	Data Science, General.
30.7099	Data Science, Other.
30.7101	Data Analytics, General.
30.7102	Business Analytics.
30.7103	Data Visualization.
30.7104	Financial Analytics.
30.7199	Data Analytics, Other.
40.0512	Cheminformatics/Chemistry Informatics.
42.2804	Industrial and Organizational Psychology.
43.0403	Cyber/Computer Forensics and Counterterrorism.
43.0405	Financial Forensics and Fraud Investigation.
45.0701	Geography.
45.0702	Geographic Information Science and Cartography.
46.0000	Construction Trades, General.
46.0101	Mason/Masonry.
46.0201	Carpentry/Carpenter.
46.0301	Electrical and Power Transmission Installation/Installer, General.
46.0302	Electrician.
46.0303	Lineworker.
46.0399	Electrical and Power Transmission Installers, Other.
46.0401	Building/Property Maintenance.
46.0402	Concrete Finishing/Concrete Finisher.
46.0403	Building/Home/Construction Inspection/Inspector.
46.0404	Drywall Installation/Drywaller.
46.0406	Glazier.
46.0408	Painting/Painter and Wall Coverer.
46.0410	Roofer.
46.0412	Building/Construction Site Management/Manager.
46.0413	Carpet, Floor, and Tile Worker.
46.0414	Insulator.
46.0415	Building Construction Technology/Technician.
46.0415	Building Construction Technology.
46.0499	Building/Construction Finishing, Management, and Inspection, Other.
46.0502	Pipefitting/Pipefitter and Sprinkler Fitter.

46.0503	Plumbing Technology/Plumber.
46.0504	Well Drilling/Driller.
46.0505	Blasting/Blaster.
46.0599	Plumbing and Related Water Supply Services, Other.
47.0101	Electrical/Electronics Equipment Installation and Repair Technology/Technician, General.
47.0102	Business Machine Repair.
47.0103	Communications Systems Installation and Repair Technology/Technician.
47.0104	Computer Installation and Repair Technology/Technician.
47.0105	Industrial Electronics Technology/Technician.
47.0110	Security System Installation, Repair, and Inspection Technology/Technician.
47.0199	Electrical/Electronics Maintenance and Repair Technologies/Technicians, Other.
47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician.
47.0302	Heavy Equipment Maintenance Technology/Technician.
47.0303	Industrial Mechanics and Maintenance Technology/Technician.
47.0600	Vehicle Maintenance and Repair Technology/Technician, General.
47.0603	Autobody/Collision and Repair Technology/Technician.
47.0604	Automobile/Automotive Mechanics Technology/Technician.
47.0605	Diesel Mechanics Technology/Technician.
47.0607	Airframe Mechanics and Aircraft Maintenance Technology/Technician.
47.0608	Aircraft Powerplant Technology/Technician.
47.0609	Avionics Maintenance Technology/Technician.
47.0612	Vehicle Emissions Inspection and Maintenance Technology/Technician.
47.0613	Medium/Heavy Vehicle and Truck Technology/Technician.
47.0614	Alternative Fuel Vehicle Technology/Technician.
47.0617	High Performance and Custom Engine Technician/Mechanic.
47.0701	Energy Systems Installation and Repair Technology/Technician.
47.0705	Hydroelectric Energy System Installation and Repair Technology/Technician.
47.0706	Geothermal Energy System Installation and Repair Technology/Technician.
48.0501	Machine Tool Technology/Machinist.
48.0503	Machine Shop Technology/Assistant.
48.0507	Tool and Die Technology/Technician.
48.0508	Welding Technology/Welder.
48.0801	Boilermaking/Boilermaker.
49.0202	Construction/Heavy Equipment/Earthmoving Equipment Operation.
49.0205	Truck and Bus Driver/Commercial Vehicle Operator and Instructor.
49.0206	Mobil Crane Operator/Operation.
50.0401	Design and Visual Communications, General.
50.0409	Graphic Design.
51.0602	Dental Hygiene/Hygienist.
51.0706	Health Information/Medical Records Administration/Administrator.
51.0707	Health Information/Medical Records Technology/Technician.
51.0709	Medical Office Computer Specialist/Assistant.
51.0713	Medical Insurance Coding Specialist/Coder.
51.0715	Health/Medical Claims Examiner.

51.0721 Disease Registry Data Management.  
 51.0802 Clinical/Medical Laboratory Assistant.  
 51.0803 Occupational Therapist Assistant.  
 51.0805 Pharmacy Technician/Assistant.  
 51.0811 Pathology/Pathologist Assistant.  
 51.0812 Respiratory Therapy Technician/Assistant.  
 51.0814 Radiologist Assistant.  
 51.0901 Cardiovascular Technology/Technologist.  
 51.0902 Electrocardiograph Technology/Technician.  
  
 51.0903 Electroneurodiagnostic/Electroencephalographic Technology/Technologist.  
 51.0904 Emergency Medical Technology/Technician (EMT Paramedic).  
 51.0905 Nuclear Medical Technology/Technologist.  
 51.0906 Perfusion Technology/Perfusionist.  
 51.0907 Medical Radiologic Technology/Science - Radiation Therapist.  
 51.0908 Respiratory Care Therapy/Therapist.  
 51.0909 Surgical Technology/Technologist.  
 51.0910 Diagnostic Medical Sonography/Sonographer and Ultrasound Technician.  
 51.0911 Radiologic Technology/Science - Radiographer.  
 51.0914 Gene/Genetic Therapy.  
 51.0915 Cardiopulmonary Technology/Technologist.  
 51.0916 Radiation Protection/Health Physics Technician.  
 51.0917 Polysomnography.  
 51.0918 Hearing Instrument Specialist.  
 51.0919 Mammography Technology/Technician.  
 51.0920 Magnetic Resonance Imaging (MRI) Technology/Technician.  
 51.0921 Hyperbaric Medicine Technology/Technician.  
 51.0922 Intraoperative Neuromonitoring Technology/Technician.  
 51.0923 Orthopedic Technology/Technician.  
 51.0999 Allied Health Diagnostic, Intervention, and Treatment Professions, Other.  
  
 51.1001 Blood Bank Technology Specialist.  
 51.1002 Cytotechnology/Cytotechnologist.  
 51.1003 Hematology Technology/Technician.  
 51.1004 Clinical/Medical Laboratory Technician.  
 51.1005 Clinical Laboratory Science/Medical Technology/Technologist.  
 51.1007 Histologic Technology/Histotechnologist.  
 51.1008 Histologic Technician.  
 51.1010 Cytogenetics/Genetics/Clinical Genetics Technology/Technologist.  
 51.1011 Renal/Dialysis Technologist/Technician.  
 51.1012 Sterile Processing Technology/Technician.  
 51.1099 Clinical/Medical Laboratory Science and Allied Professions, Other.  
 51.1502 Psychiatric/Mental Health Services Technician.  
 51.1801 Opticianry/Ophthalmic Dispensing Optician.  
 51.1802 Optometric Technician/Assistant.  
 51.1803 Ophthalmic Technician/Technologist.  
 51.1804 Orthoptics/Orthoptist.  
  
 51.2307 Orthotist/Prosthetist.  
 51.2312 Assistive/Augmentative Technology and Rehabilitation Engineering.  
 51.2706 Medical Informatics.

51.3101	Dietetics/Dietitian.
51.3103	Dietetic Technician.
51.3104	Dietitian Assistant.
51.3801	Registered Nursing/Registered Nurse.
51.3802	Nursing Administration.
51.3803	Adult Health Nurse/Nursing.
51.3805	Family Practice Nurse/Nursing.
51.3806	Maternal/Child Health and Neonatal Nurse/Nursing.
51.3808	Nursing Science.
51.3809	Pediatric Nurse/Nursing.
51.3810	Psychiatric/Mental Health Nurse/Nursing.
51.3811	Public Health/Community Nurse/Nursing.
51.3812	Perioperative/Operating Room and Surgical Nurse/Nursing.
51.3813	Clinical Nurse Specialist.
51.3814	Critical Care Nursing.
51.3815	Occupational and Environmental Health Nursing.
51.3816	Emergency Room/Trauma Nursing.
51.3818	Nursing Practice.
51.3819	Palliative Care Nursing.
51.3820	Clinical Nurse Leader.
51.3821	Geriatric Nurse/Nursing.
51.3822	Women's Health Nurse/Nursing.
51.3824	Forensic Nursing.
51.3899	Registered Nursing, Nursing Administration, Nursing Research and Clinical Nursing, Other.
51.3901	Licensed Practical/Vocational Nurse Training.
51.3999	Practical Nursing, Vocational Nursing and Nursing Assistants, Other.
52.0101	Business/Commerce, General.
52.0201	Business Administration and Management, General.
52.0213	Organizational Leadership.
52.0301	Accounting.
52.0302	Accounting Technology/Technician and Bookkeeping.
52.0303	Auditing.
52.0304	Accounting and Finance.
52.0305	Accounting and Business/Management.
52.0601	Business/Managerial Economics.
52.0801	Finance, General.
52.0803	Banking and Financial Support Services.
52.0809	Credit Management.
52.1201	Management Information Systems, General.
52.1301	Management Science.
52.1404	Digital Marketing.
52.1601	Taxation.
52.1701	Insurance.