**NWCCD Strategy 2.3: Proposed Industrial Electricity Transfer Plan and Career Pathway – “No Options” Plan**

Developing a Career Pathway:

The most efficient way to develop career pathways under the TAACCCT Round 1 strategies selected by the Wyoming Community College Coalition was do develop Strategy 2.3 and Strategy 3.2 in tandem. Both strategies required the input of industry partners to identify key knowledge, skills, and abilities (KSAs) required by students seeking employment and the development of curricula addressing those needed skillsets. Once established, the career pathways needed under Strategy 3.2 become identical to the transfer pathways to various baccalaureate programs at four-year institutions required by Strategy 2.3, with all guesswork on the part of the student as to which courses are needed removed. After what are dubbed “No Options” pathways are documented and reviewed by program faculty and transfer specialists, they are presented to industry advisory committees for final approval.

Understanding the industry or industries for which the programs being developed under the TAACCCT grant is a critical component for determining the methods for acquiring industry input on curricula through Knowledge, Skills, and Abilities (KSA) outlines, developing context for program assessments, promotional materials for student recruitment, challenges to offering career awareness events as part of the marketing effort, and more. A thorough understanding of industry growth or retraction in the college’s service area provides a context against which the success of program can be measured.

After analyzing industry growth or retraction in a college’s service area, coupled with the determination of the largest companies and their potential hiring needs over various time scales (e.g., one-year hiring projection, two-year hiring projection, etc.), allows the TAACCCT grant team to work with local industry, program faculty, and district administration to develop career awareness events or recruiting strategies that will have the most efficacious impact.

Selection of the Bachelors of Applied Science was made to aid in the advising of Industrial Electricity who want a clear path from NWCCD’s Industrial Electricity AAS to the University of Wyoming’s BAS.

The “No Options” Student Plan:

Colleges in the state of Wyoming have significant difficulty with student retention and the completion of degree programs. At both the community college and the university level approximately one quarter to one third of students enrolled in academic programs complete their education in the projected time frame. There are several possible reasons for this low retention and completion rate.

One possibility is that, due to the state’s rural nature, the distances a student must travel combined with course scheduling may impact the ability to attend, particularly if a student is employed in one town and the class is offered elsewhere. A second possibility is the number of decisions a student must make with or without the assistance of an academic advisor regarding what classes to take; the number of options and prerequisites required to reach graduation and transfer to the university level can be confusing, particularly for a student returning to an academic environment after years outside the system. Selection of course inapplicable to a degree or transfer or overlooking a hidden prerequisite adds time from initial enrollment to graduation or transfer. This added time, particularly in a depressed economic climate where sustainable living wage work is hard to find, is a time investment some students cannot afford.

In an effort to increase student retention and completion rates while eliminating unnecessary guesswork and classroom time, the Northern Wyoming Community College District (NWCCD) TAACCCT Grant team has developed a “No Options Option” student plan for programs that align with growth industries indicated by market research. This student plan and advising process identifies all required prerequisites needed for transfer to the University of Wyoming while eliminating the possibility of a student enrolling in courses that do not meet graduation and transfer requirements, providing the clearest pathway to degree completion and a return to employment.

Targeted Student Demographic:

The “No Options Option” student plan and pathway is designed primarily for students who need to acquire or refine education in order to advance in their current job or to return to gainful employment. The student plan eliminates guesswork by advising students on what courses to take and when to take them in a clear, easy to understand format and checklist designed to eliminate a student’s need to meet with an academic advisor each semester to choose appropriate courses. While not every student wants or needs to transfer to a Bachelor’s program to achieve their academic and employment goals the “No Options” plan outlines a pathway to completing a higher degree at the University of Wyoming.

General Education Requirements, Not Including Prerequisites:

The first step in developing a No Options pathway is to ensure that the general education requirements for associate degrees are clearly identified. After speaking with students across campus on their advising experience, many indicated that the general education requirements (not including prerequisite or remedial courses) were either unclear or that the number of options available to satisfy the requirements were overwhelming.

The second step is to review the general education courses that satisfy the graduation and transfer requirements and select the ones that are most applicable to the degree path. This may include the input of a subject matter expert, such as a faculty member, to ensure the best fit for the program.

In the example below, the general education requirements were reviewed for their best applicability to a proposed Associate of Applied Science in Industrial Electricity degree and transfer pathway. Criterion for selection were based both on Wyoming’s requirements as well as applicability to the Bachelors of Applied Science offered at the University of Wyoming; where possible, courses were selected to create a latticed pathway that would allow for additional degree options while maintaining a “No Options” completion pathway. Additionally, courses were chosen for their applicability to the development of career pathways in the Industrial Electricity field. Where necessary, revision recommendations for classes were made for NWCCD’s administration to increase the applicability to general education requirements.

Writing Requirement: 3 Units

English 1010 – English 1 (3 Units)

Math and Quantitative Reasoning Requirement: 3 Units

Math 1500 – Applied Math (3 Units)

US and Wyoming Constitution: 3 Units

Political Science 1000 – American & Wyoming Government (3 Units)

Total General Education Units Required: 9 Units

Remaining Degree Emphasis Unit Requirements: 51-51.5

Total Degree Requirements (under Wyoming curricula revision legislation): 60-60.5

Advising Tools:

The following pages provide an example of the proposed “No Options” pathways to degree completion and transfer, designed as a transfer pathway to the Bachelor of Applied Science in Organizational Culture degree program at the University of Wyoming. This basic advising document was developed under TAACCCT Round 1 to act in several capacities: a “No Options” degree pathway; a degree completion checklist; and a career pathway plan.

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| **B.A.S. to the University of Wyoming**  |
| Full Name: | Initial Advising Date: |
| Preferred Email: | Home Phone #: |
| NWCCD ID #: | Cell Phone #: |
| **General Education Requirements** |
| **Term** | **Grade** | **Requirement** | **Term** | **Grade** | **Requirement** |
| **Writing Requirement (3 Units):** | **Math and Quantitative Reasoning Requirement (3 Units):** |
|  |  | English 1010 – English 1 (3 Units) |  |  | Math 1500—Applied Math (3 Units) |
| **US & WY Constitution: (3 Units)** |  |
|  |  | Political Science 1000 – American & Wyoming Government (3 Units) |  |  |  |
| **Other Requirements: 0 Units** |
|  |  |  |  |  |  |
| **Associate of Applied Science in Industrial Electricity** |
|  |  | Electricity 1515 – Electrical Skills and Practices (3 Units) |  |  |  |
|  |  | Electricity 1600 – National Electrical Code I (3 Units) |  |  |  |
|  |  | Electricity 2550 – AC/DC Electric Theory Circuit (6 Units) |  |  |  |
|  |  | Mining 1840 – New Miner Training (1.5 Units) or any SAFE course (2 Units) |  |  |  |
|  |  | Electricity 1800 – National Electrical Code II/CFR 30 (3 Units) |  |  |  |
|  |  | Electricity 2560 – Power Electronics Theory (3 Units) |  |  |  |
|  |  | Electricity 2580 – Motors and Generators and Transformers (4 Units) |  |  |  |
|  |  | Electricity 2815 – Programmable Logic Controllers (3 Units) |  |  |  |
|  |  | Electricity 2840 – Industrial Controls I (4 Units) |  |  |  |
|  |  | Technical 2980 – Tech Co-op (7.5 Units) |  |  |  |
|  |  | Electricity 2880 – Solid State Motor Control (Industrial Controls II) (3 Units) |  |  |  |
|  |  | Electricity 2935 – High Voltage Systems (3 Units) |  |  |  |
|  |  | Electricity 170 – Intro to Digital Electricity (4 Units) |  |  |  |
|  |  | Electricity 2940 – Advanced PLC Programming (3 Units) |  |  |  |
| **University of Wyoming General Education Requirements: 24 Units Required, 21 Units available at NWCCD** |
|  |  | English 4010 – Technical Writing in the Professions (3 Units) |  |  | English 2010 – Technical Writing (3 Units)\*\*Program Requirement\*\* |
|  |  |  |  |  | 2 Science Courses (6 Units)Geology 1100 – Physical Geography (4 Units)Astronomy 1050 – Survey of Astronomy (4 Units)\*\*Program Requirement\*\* |
|  |  |  |  |  | 2 Cultural Context Courses (6 Units)History 1110 – Western Civilization I (3 Units)Anthropology 1200 – Introduction to Cultural Anthropology (3 Units)\*\*Program Requirement\*\* |
|  |  |  |  |  | 2 Communication Courses (6 Units)Communications 1010 – Introduction to Public SpeakingCommunication 1030 – Interpersonal Communication (3 Units)\*\*Program Requirement\*\* |
| **Univ. of Wyoming, Bachelor of Applied Science (48 Units Required)** |
|  |  | AGRI 3000 – Discovering/Utilizing Ideas and Information (3 Units) |  |  | FCSC 4117 – Community Leadership (3 Units) |
|  |  | COJO 3010 – Business and Professional Communication (3 Units) |  |  | MGT 3210 – Management & Organizations (3 Units) |
|  |  | COJO 3190 – Cross-Cultural Communication (3 Units) |  |  | MKT 3210 – Introduction to Marketing (3 Units) |
|  |  | AGRI 4990 – Organizational Problem Solving in the Social Sciences (3 Units) |  |  | MGT 4410 – Human Resource Management (3 Units) |
|  |  | ENR 4500 – Risk Analysis (3 Units) |  |  | CRMJ 3200 – Ethics and the Administration of Justice (3 Units) |
|  |  | AGEC 4660 – Community & Economic Development (3 Units) |  |  | HIST 4545 – Multicultural West (3 Units) |
|  |  | AGEC 3750 – Natural Resource Economics (3 Units) |  |  | POLS 4420 – Seminar in Public Administration (3 Units) |

**Lessons Learned:**

The development of “No Options” or limited options pathways as part of an advising strategy is a time-consuming process. In many cases, students have indicated that they were unaware of the specific requirements for completing an Associate level degree program and qualifying for transfer, or have indicated that the selection of courses available to satisfy a requirement is nearly overwhelming. By working with subject matter experts (faculty), advising departments can develop degree completion and transfer pathways that may reduce or eliminate student enrollment in courses that either do not directly benefit the program of study or may not be applicable for transfer to a four-year program of study.

As many community colleges around the country act as feeder schools to a state university system, working with the transfer advisors to develop a pathway through the baccalaureate program is an ideal way to increase the likelihood of students transferring and completing higher degrees.

While each university system has different requirements for transfer and completion, one common theme students have reported is that general education requirements in addition to baccalaureate program requirements are often not clearly identified during the advising process; students may assume that, by completing all their general education requirements at the community college level, they only have to focus on their baccalaureate program requirements – and then are surprised when they have to take additional courses.

Having advising staff at the community college level work with both discipline faculty and transfer advisors to create an articulated pathway to transfer can, therefore, reduce student confusion and stress while ensuring that all prerequisite, completion, and transfer requirements have been identified in a clear, easy to follow format.