# 2021

## Skills-to-Course Matrix

**[CTE Program of Study Name]**

**[High School Name]**
**[Community College Name]**
**[Date]**

## Forestry & Forest Products Focus Area

**Instructions**: 1) Enter the Program of Study name above. 2) Enter your high school name. 3) Enter the community college name. 4) Enter the date. 5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded. 9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course. Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

| | | | [Course 1 Name] | [Course 2 Name] | [Course 3 Name] | [Course 4 Name] | [Course 5 Name] | [Course 6 Name] | [Course 7 Name] | [Course 8 Name] | [Course 9 Name] | [Course 10 Name] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] |
| | | | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] |
| | | **Focus Area Knowledge and Skills (CTE standards)** | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] |
| CCTC* | Code Number | KS Statement | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] |
| AG-FFP 1 | AGFP01 | Describe the ecological concepts and principles; investigate and explain the relationships between these principles and AGFPest development. | | | | | | | | | | |
| AG-FFP 2 | AGFP02 | Illustrate Oregon's diverse AGFPests including history, cultural uses, AGFPest types, policies, and industry. | | | | | | | | | | |
| AG-FFP 3 | AGFP03 | Explain the human/natural resources relationships when implementing AGFPest management activities. | | | | | | | | | | |
| AG-FFP 4 | AGFP04 | Demonstrate skills essential AGFPleadership and citizenship responsibilities. | | | | | | | | | | |
| AG-FFP 5 | AGFP05 | Demonstrate skills in career research, planning, and preparation. | | | | | | | | | | |
| AG-FFP 6 | AGFP06 | Document and describe AGFPest production practices and timber processing procedures. | | | | | | | | | | |
| AG-FFP 7 | AGFP07 | Summarize and explain applications of appropriate AGFPest health practices. | | | | | | | | | | |
| AG-FFP 8 | AGFP08 | Identify multi_use principles to AGFPests and associated lands (to include wild life, fish, recreation, water, energy, air, carbon and ect). | | | | | | | | | | |
| AG-FFP 9 | AGFP09 | Apply cartographic (map) skills to AGFPest management activities. | | | | | | | | | | |
| AG-FFP 10 | AGFP10 | Apply AGFPest mensuration techniques. | | | | | | | | | | |
| AG-FFP 11 | AGFP11 | Prepare a business plan using accepted business management principles used in the production, processing, marketing and transportation of AGFPest project / products. | | | | | | | | | | |

# 2021
## Skills-to-Course Matrix

**[CTE Program of Study Name]**
**[High School Name]**
**[Community College Name]**
**[Date]**

### Agriculture, Food & Natural Resources Cluster

**Instructions**: 1) Enter the Program of Study name above.  2) Enter your high school name.  3) Enter the community college name.  4) Enter the date.  5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded.  9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are <u>taught with intent and purpose,</u> and are <u>assessed</u> in each course.  Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry fociusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

| CCTC* | Code Number | **Cluster Knowledge and Skills (CTE standards)** <br> KS Statement | [Course 1 Name] <br> [Course Number] <br> [NCES Code] <br> [# of Credits] <br> [TSA--Y or N?] | [Course 2 Name] <br> [Course Number] <br> [NCES Code] <br> [# of Credits] <br> [TSA--Y or N?] | [Course 3 Name] <br> [Course Number] <br> [NCES Code] <br> [# of Credits] <br> [TSA--Y or N?] | [Course 4 Name] <br> [Course Number] <br> [NCES Code] <br> [# of Credits] <br> [TSA--Y or N?] | [Course 5 Name] <br> [Course Number] <br> [NCES Code] <br> [# of Credits] <br> [TSA--Y or N?] | [Course 6 Name] <br> [Course Number] <br> [NCES Code] <br> [# of Credits] <br> [TSA--Y or N?] | [Course 7 Name] <br> [Course Number] <br> [NCES Code] <br> [# of Credits] <br> [TSA--Y or N?] | [Course 8 Name] <br> [Course Number] <br> [NCES Code] <br> [# of Credits] <br> [TSA--Y or N?] | [Course 9 Name] <br> [Course Number] <br> [NCES Code] <br> [# of Credits] <br> [TSA--Y or N?] | [Course 10 Name] <br> [Course Number] <br> [NCES Code] <br> [# of Credits] <br> [TSA--Y or N?] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AG 1 | AG01 | Analyze how issues, trends, technologies, and public policies impact systems in the Agriculture, Food & Natural Resources Career ClusterTM. | | | | | | | | | | |
| AG 2 | AG02 | Evaluate the nature and scope of the Agriculture, Food & Natural Resources Career ClusterTM and the role agriculture, food, and natural resources (AFNR) play in society and the economy. | | | | | | | | | | |
| AG 3 | AG03 | Examine and summarize importance of health, safety, and environmental management systems in AFNR organizations. | | | | | | | | | | |
| AG 4 | AG04 | Demonstrate stewardship of natural resources in AFNR activities. | | | | | | | | | | |
| AG 5 | AG05 | Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources Career Pathways. | | | | | | | | | | |
| AG 6 | AG06 | Analyze the interaction among ANFR systems in the production, processing and management of food, fiber, and fuel and sustainable use of natural resources. | | | | | | | | | | |

# 2021

## Skills-to-Course Matrix

**[CTE Program of Study Name]**

**[High School Name]**
**[Community College Name]**
**[Date]**

### Agribusiness Systems Focus Area

| CCTC* | Code Number | Focus Area Knowledge and Skills (CTE standards) — KS Statement | [Course 1 Name] [Course Number] [NCES Code] [# of Credits] | [Course 2 Name] [Course Number] [NCES Code] [# of Credits] | [Course 3 Name] [Course Number] [NCES Code] [# of Credits] | [Course 4 Name] [Course Number] [NCES Code] [# of Credits] | [Course 5 Name] [Course Number] [NCES Code] [# of Credits] | [Course 6 Name] [Course Number] [NCES Code] [# of Credits] | [Course 7 Name] [Course Number] [NCES Code] [# of Credits] | [Course 8 Name] [Course Number] [NCES Code] [# of Credits] | [Course 9 Name] [Course Number] [NCES Code] [# of Credits] | [Course 10 Name] [Course Number] [NCES Code] [# of Credits] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] |
| AG-BIZ 1 | AGBZ01 | Apply management planning principles in AFNR business enterprises. | | | | | | | | | | |
| AG-BIZ 2 | AGBZ02 | Use record keeping to accomplish AFNR business objectives, manage budgets, and comply with laws and regulations. | | | | | | | | | | |
| AG-BIZ 3 | AGBZ03 | Manage cash budgets, credit budgets, and credit for an AFNR business using generally accepted accounting principles. | | | | | | | | | | |
| AG-BIZ 4 | AGBZ04 | Develop a business plan for an AFNR enterprise or business unit. | | | | | | | | | | |
| AG-BIZ 5 | AGBZ05 | Use sales and marketing principles common to agribusiness systems to accomplish AFNR business objectives. | | | | | | | | | | |

# 2021

## Skills-to-Course Matrix

**[CTE Program of Study Name]**

**[High School Name]**
**[Community College Name]**
**[Date]**

### Animal Systems Focus Area

**Instructions**: 1) Enter the Program of Study name above.  2) Enter your high school name.  3) Enter the community college name.  4) Enter the date.  5) Click on the cell for Course 1 Name, Course 2 Name, etc., and replace with your POS course names--secondary and first year of post-secondary. 6) Enter school course numbers. 7) Enter NCES code for the course (secondary only). 8) Enter number of credits awarded.  9) Identify those courses that trigger the TSA for this POS. 10) Finally, check those standards that are taught with intent and purpose, and are assessed in each course.  Note: The optional Focus Area tabs below are included for those POSs that have a very specific industry focusare using those skill sets for multiple options in a Progam of Study or if you want to use another set of industry validated standards.

| | | | [Course 1 Name] | [Course 2 Name] | [Course 3 Name] | [Course 4 Name] | [Course 5 Name] | [Course 6 Name] | [Course 7 Name] | [Course 8 Name] | [Course 9 Name] | [Course 10 Name] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] |
| | | | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] |
| | **Focus Area Knowledge and Skills (CTE standards)** | | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] |
| **CCTC\*** | **Code Number** | **KS Statement** | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] |
| AG-ANI 1 | AGAN01 | Analyze historic and current trends impacting the animal systems industry. | | | | | | | | | | |
| AG-ANI 2 | AGAN02 | AGAN02 | | | | | | | | | | |
| AG-ANI 3 | AGAN03 | Design and provide proper animal nutrition given desired outcomes for performance, development, reproduction, and/or economic production. | | | | | | | | | | |
| AG-ANI 4 | AGAN04 | Apply principles of animal reproduction given desired outcomes for performance, development, and/or economic production. | | | | | | | | | | |
| AG-ANI 5 | AGAN05 | Evaluate environmental factors affecting animal performance and implement procedures for enhancing performance and animal health. | | | | | | | | | | |
| AG-ANI 6 | AGAN06 | Classify, evaluate and select animals based on anatomical and physiological characteristics. | | | | | | | | | | |
| AG-ANI 7 | AGAN07 | Apply principles of effective animal health care. | | | | | | | | | | |

# 2021
## Skills-to-Course Matrix

**[CTE Program of Study Name]**
**[High School Name]**
**[Community College Name]**
**[Date]**

### Environmental Service Systems Focus Area

| CCTC* | Code Number | **Focus Area** Knowledge and Skills (CTE standards) | [Course 1 Name] | [Course 2 Name] | [Course 3 Name] | [Course 4 Name] | [Course 5 Name] | [Course 6 Name] | [Course 7 Name] | [Course 8 Name] | [Course 9 Name] | [Course 10 Name] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] |
| | | | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] |
| | | | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] |
| | | | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] |
| AG-ENV 1 | AGEV01 | Use analytic procedures and instruments to manage environmental systems activities. | | | | | | | | | | |
| AG-ENV 2 | AGEV02 | Evaluate the impact of public policies and regulations on environmental services facility operations. | | | | | | | | | | |
| AG-ENV 3 | AGEV03 | Develop proposed solutions to environmental issues, problems, and applications using scientific principles of meteorology, soil science, hydrology, microbiology, chemistry, and ecology. | | | | | | | | | | |
| AG-ENV 4 | AGEV04 | Demonstrate the operation of environmental service systems (e.g., pollution control, water treatment, wastewater treatment, solid waste management, and energy conservation). | | | | | | | | | | |
| AG-ENV 5 | AGEV05 | Use tools, equipment, machinery, and technology common to tasks in environmental system services. | | | | | | | | | | |

# 2021

## Skills-to-Course Matrix

**[CTE Program of Study Name]**

**[High School Name]**
**[Community College Name]**
**[Date]**

### Food Production & Processing Focus Area

| CCTC* | Code Number | KS Statement | [Course 1 Name] | [Course 2 Name] | [Course 3 Name] | [Course 4 Name] | [Course 5 Name] | [Course 6 Name] | [Course 7 Name] | [Course 8 Name] | [Course 9 Name] | [Course 10 Name] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] |
| | | | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] |
| | | **Focus Area Knowledge and Skills (CTE standards)** | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] |
| | | | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] |
| AG-FD 1 | AGFD01 | Develop and implement procedures to ensure safety, sanitation, and quality in food product and processing facilities. | | | | | | | | | | |
| AG-FD 2 | AGFD02 | Apply principles of nutrition, biology, microbiology, chemistry, and human behavior to development of food products. | | | | | | | | | | |
| AG-FD 3 | AGFD03 | Select and process food products for storage, distribution, and consumption. | | | | | | | | | | |
| AG-FD 4 | AGFD04 | Explain the scope of the food industry and the historical and current developments of food products and processing. | | | | | | | | | | |

# 2021
## Skills-to-Course Matrix

**[CTE Program of Study Name]**
**[High School Name]**
**[Community College Name]**
**[Date]**

### Natural Resources Focus Area

| | | | [Course 1 Name] | [Course 2 Name] | [Course 3 Name] | [Course 4 Name] | [Course 5 Name] | [Course 6 Name] | [Course 7 Name] | [Course 8 Name] | [Course 9 Name] | [Course 10 Name] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] |
| | | | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] |
| | | **Focus Area Knowledge and Skills (CTE standards)** | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] |
| **CCTC\*** | **Code Number** | **KS Statement** | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] |
| AG-NR 1 | AGNR01 | Plan and conduct natural resource management activities that apply logical, reasoned, and scientifically based solutions to natural resource issues and goals. | | | | | | | | | | |
| AG-NR 2 | AGNR02 | Analyze interrelationships between natural resources and humans needed to manage natural resource systems. | | | | | | | | | | |
| AG-NR 3 | AGNR03 | Develop plans to ensure responsible and sustainable production and processing of natural resources. | | | | | | | | | | |
| AG-NR 4 | AGNR04 | Demonstrate responsible control and management procedures and techniques to protect or maintain natural resources. | | | | | | | | | | |

# 2021

## Skills-to-Course Matrix

**[CTE Program of Study Name]**

**[High School Name]**
**[Community College Name]**
**[Date]**

## Plant Systems Focus Area

| CCTC* | Code Number | KS Statement | [Course 1 Name] [Course Number] [NCES Code] [# of Credits] [TSA--Y or N?] | [Course 2 Name] [Course Number] [NCES Code] [# of Credits] [TSA--Y or N?] | [Course 3 Name] [Course Number] [NCES Code] [# of Credits] [TSA--Y or N?] | [Course 4 Name] [Course Number] [NCES Code] [# of Credits] [TSA--Y or N?] | [Course 5 Name] [Course Number] [NCES Code] [# of Credits] [TSA--Y or N?] | [Course 6 Name] [Course Number] [NCES Code] [# of Credits] [TSA--Y or N?] | [Course 7 Name] [Course Number] [NCES Code] [# of Credits] [TSA--Y or N?] | [Course 8 Name] [Course Number] [NCES Code] [# of Credits] [TSA--Y or N?] | [Course 9 Name] [Course Number] [NCES Code] [# of Credits] [TSA--Y or N?] | [Course 10 Name] [Course Number] [NCES Code] [# of Credits] [TSA--Y or N?] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Focus Area Knowledge and Skills (CTE standards)** | | | | | | | | | | |
| AG-PL 1 | AGPL01 | Develop and implement a crop management plan for a given production goal that accounts for environmental factors. | | | | | | | | | | |
| AG-PL 2 | AGPL02 | Apply the principles of classification, plant anatomy, and plant physiology to plant production and management. | | | | | | | | | | |
| AG-PL 3 | AGPL03 | Propagate, culture, and harvest plants and plant products based on current industry standards. | | | | | | | | | | |
| AG-PL 4 | AGPL04 | Apply principles of design in plant systems to enhance an environment (e.g., floral, forest, landscape, and farm). | | | | | | | | | | |

# 2021
## Skills-to-Course Matrix

**[CTE Program of Study Name]**

**[High School Name]**
**[Community College Name]**
**[Date]**

### Power, Structural & Technical Systems Focus Area

| | | | [Course 1 Name] | [Course 2 Name] | [Course 3 Name] | [Course 4 Name] | [Course 5 Name] | [Course 6 Name] | [Course 7 Name] | [Course 8 Name] | [Course 9 Name] | [Course 10 Name] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] | [Course Number] |
| | | | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] | [NCES Code] |
| | **Focus Area** Knowledge and Skills (CTE standards) | | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] | [# of Credits] |
| **CCTC\*** | **Code Number** | **KS Statement** | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] | [TSA--Y or N?] |
| AG-PST 1 | AGPT01 | Apply physical science principles and engineering applications related to mechanical equipment, structures, and biological systems to solve problems and improve performance in AFNR power, structural, and technical systems. | | | | | | | | | | |
| AG-PST 2 | AGPT02 | Operate and maintain mechanical equipment related to AFNR power, structural, and technical systems. | | | | | | | | | | |
| AG-PST 3 | AGPT03 | Service and repair mechanical equipment and power systems used in AFNR power, structural, and technical systems. | | | | | | | | | | |
| AG-PST 4 | AGPT04 | Plan, build, and maintain AFNR structures. | | | | | | | | | | |
| AG-PST 5 | AGPT05 | Use control, monitoring, geospatial, and other technologies in AFNR power, structural, and technical systems. | | | | | | | | | | |