

Agricultural Power and Technology National AFNR Common Career Technical Core Standards Alignment

| | Unit 1 Introduction to Ag Power and Technology | Unit 2 Safety and Measurement | Unit 3 Material Properties | Unit 4 Fabrication | Unit 5 Energy | Unit 6 Machines and Structures | Unit 7 Mechanical Applications |
|---|--|-------------------------------|----------------------------|--------------------|---------------|--------------------------------|--------------------------------|
| Career Ready Practices | | | | | | | |
| 1. Act as a responsible and contributing citizen and employee. | | X | | | | | |
| 2. Apply appropriate academic and technical skills. | X | X | X | X | X | X | |
| 3. Attend to personal health and financial well-being. | X | | | | | | |
| 4. Communicate clearly, effectively and with reason. | X | X | X | X | X | X | X |
| 5. Consider the environmental, social and economic impacts of decisions. | | X | | | X | X | X |
| 6. Demonstrate creativity and innovation. | | X | X | X | | X | X |
| 7. Employ valid and reliable research strategies. | | | | | | | |
| 8. Utilize critical thinking to make sense of problems and persevere in solving them. | X | X | | | X | X | X |
| 9. Model integrity, ethical leadership and effective management. | | | | | | | |
| 10. Plan education and career path aligned to personal goals. | | | | | | | X |
| 11. Use technology to enhance productivity. | | X | X | | | | |
| 12. Work productively in teams while using cultural/global competence. | | | | | | | |

| | Unit 1 Introduction to Ag Power and Technology | Unit 2 Safety and Measurement | Unit 3 Material Properties | Unit 4 Fabrication | Unit 5 Energy | Unit 6 Machines and Structures | Unit 7 Mechanical Applications |
|---|--|-------------------------------|----------------------------|--------------------|---------------|--------------------------------|--------------------------------|
| Agriculture, Food, and Natural Resources Career Cluster | | | | | | | |
| 1. Analyze how issues, trends, technologies and public policies impact systems in the Agriculture, Food & Natural Resources Career Cluster. | | X | | | X | X | |
| 2. Evaluate the nature and scope of the Agriculture, Food & Natural Resources Career Cluster and the role agriculture, food and natural resources (AFNR) play in society and the economy. | X | | | | | | |
| 3. Examine and summarize importance of health, safety, and environmental management systems in AFNR organizations. | | X | X | | | X | |
| 4. Demonstrate stewardship of natural resources in AFNR activities. | | | | | | | |
| 5. Describe career opportunities and means to achieve those opportunities in each of the AFNR career pathways. | | | | | | | X |
| 6. Analyze the interaction among AFNR systems in the production, processing and management of food, fiber and fuel and the sustainable use of natural resources. | | | X | | X | X | |
| Power, Structural and Technical (AG-PST) | | | | | | | |
| 1. 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. | X | X | X | X | X | X | X |
| 2. Operate and maintain mechanical equipment related to AFNR power, structural, and technical systems. | | X | X | X | | X | |
| 3. Service and repair mechanical equipment and power systems used in AFNR power, structural and technical systems. | | | X | X | X | X | |
| 4. Plan, build and maintain AFNR structures. | | | X | X | | X | |
| 5. Use control, monitoring, geospatial and other technologies in AFNR power, structural and technical systems. | | | | | | X | |