

Pathways to Success

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Introducing Career Coaching and Pathways Using Pathway Maps for Career Exploration and Planning



WY Adult Education
Summer Institute
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Jeffrey A. Fantine, Ph.D.

➤ **Nearly 35 years in Adult Education**

➤ **Former:**

- **Instructor/Director of Local Adult Education Program**
- **Director, Adult Education Professional Development Center (Ohio)**
- **State Director of Adult Education (Maine)**
- **Director of OCTAE's National Career Pathways Project**
- **COABE Vice President**
- **NCL Vice President and AALPD Chair**

➤ **Current:**

- **Professor of Adult Education Graduate Studies at OSU**
- **National Consultant/Trainer**

Adult Education – Workforce Development – Career Pathways



SESSION OBJECTIVES

- Introduce and Provide an Overview of Career Pathways Chart and Maps
- Discuss How to Use Maps in Your Program, Particularly in Your Career Coaching / Advising Process

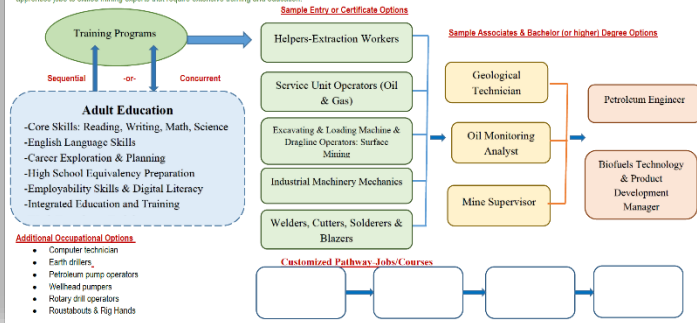
CAREER PATHWAYS FOR ADULT EDUCATION

Natural Resources Extraction & Processing (Including Oil & Gas)

Industrial & Engineering Technology Career Cluster

Sector Description:

This sector falls under the Industrial & Engineering Technology career cluster and includes the extraction of ores, fossil fuels, minerals, stone, clay, gravel and similar commodities. It comprises the coal mining industry, metal mining industry, nonmetallic mineral mining industry and oil & gas extraction industry. Mining in Wyoming is a growth industry offering many employment opportunities. Positions vary, ranging from unskilled laborer and apprentice jobs to skilled mining experts that require extensive training and education.



ABOUT CAREER PATHWAYS

Career Pathways combine education, work readiness and job training to attain necessary skills and credentials for specific in-demand occupations or industries. Career Pathway maps illustrate how students can move along a career path in a specific occupational area from adult education through post-secondary or advanced job-training programs and into employment. To advance along a career pathway more quickly, explore opportunities to participate in education and training concurrently. It is suggested that this may be used in conjunction with information on specific education and training programs in Wyoming or in your local area.

Name _____

CAREER PATHWAYS FOR ADULT EDUCATION- Natural Resources Extraction & Processing

ADULT EDUCATION-High School Equivalency (HSE)

Median Wages: \$10.49 Hourly / \$21,818 Annual
 Many jobs require a high school diploma/equivalent. The official HSE tests (GED or HSEET) require that students demonstrate proficiency in English, reading, writing, math, science and social studies.

SKILLS

- used for comprehension
- understand math and its practical applications to the career
- using estimator rates a method to solve problems
- effective oral and written communications skills
- strong critical thinking abilities: use of logic and reasoning to identify strengths and weaknesses of alternative solutions, conclusions or approaches to problems
- Digitally literate: proficient in Word, Excel and PowerPoint

HELPERS-EXTRACTION WORKERS

Median Wages: \$20.73 Hourly / \$43,100 Annual
Description: Help extraction craft workers, such as earth drillers, blasters and explosives workers, general operators, and mining machine operators, by performing duties requiring less skill. Duties include supplying equipment or cleaning work area.

Job Duties

- Observe & monitor equipment operation during extraction process to detect problems
- Repair & maintain automotive and drilling, extracting & boring equipment, using hand tools
- Load materials, dig trenches and move equipment to excavation sites
- Collect & examine geological matter, using hand tools and testing devices
- Provide assistance, as needed, to extraction craft workers

SERVICE UNIT OPERATORS: OIL & GAS

Median Wages: \$24.11 Hourly / \$50,140 Annual
Description: Operate equipment to increase or flow from producing wells or to remove stuck pipe, casing, tools, or other obstructions from drilling wells. Includes fishing-tool technicians. Sample job titles include: Pulling unit operator, Reverse unit operator, Rig operator, Service operator, Tool pusher, well servicing rig operator, & wireline operator.

Job Duties

- Maintain & perform safety inspections on equipment and tools
- Operate various & controls that use derricks or level rig
- Perforate well casings or sidewalls of boreholes with explosive charges
- Interpret instrument readings to ascertain the depth of obstruction
- Thread cables through derricks/pulleys, using hand tools
- Apply green technologies/techniques, such as the use of coiled tubing, slim-hole drilling, horizontal drilling, hydraulic fracturing or gas lift systems.

EXCAVATING & LOADING MACHINE & DRAGLE OPERATORS-SURFACE MINING

Median Wages: \$23.24 Hourly / \$48,350 Annual
Description: Operate or tend machinery at surface mining sites, equipped with scoops, shovels or buckets to excavate and load loose materials.

Job Duties

- Operate machinery for backfilling excavations, vibrating or breaking rock/concrete
- Move materials over short distances; handle slides, mud or oil cleaning or maintenance
- Direct workers engaged in placing block/chargers to prevent capsizing of machines when lifting heavy loads
- Set up, maintain, and inspect equipment

MINE SUPERVISOR

Median Wages: \$39.18 Hourly / \$81,494 Annual
Description: Knowledge of MSHA rules and regulations; team development & crew training; work reorganization; planning, act as Fire Boss for the mine; cost savings and efficient improvement projects; conflict resolution.

Job Duties

- Coordinate manpower requirements in the area to develop work assignments
- Conduct safety & housekeeping audits/behavior audits
- Maintain knowledge of MITS
- Ensure workpieces is loaded appropriately
- Serve as a technical resource for mine crews
- Human resource duties, approval of payroll, respond to grievances and administer appropriate discipline when necessary

PETROLEUM ENGINEER

Median Wages: \$83.32 Hourly / \$171,800 Annual
Description: Devise methods to increase oil and gas production and determine the need for new or modified tool designs.

Job Duties

- Monitor production rates & plan reservoir processes to improve production
- Direct & monitor the completion of evaluation of wells, well testing, or well surveys
- Assess costs & estimate the production capabilities & economic value of oil and gas wells, to evaluate the economic viability of potential drilling sites
- While Intellectual property for engineering & management personnel

OTHER OCCUPATION

Median Wages:

Description:

Job Duties:

-
-
-



Introducing Career Coaching and Pathways

Career Pathways Maps - Overview



Purpose:

- To assist students with exploring career opportunities, understanding a career path within an industry or field, becoming familiar with relevant information and job tasks for a particular occupation, and planning a preferred career path and/or the education and training required for a specific occupation.

NOTE: The Maps were aligned to in-demand occupations, wage information and industry growth projections for Wyoming as detailed on the state's Department of Workforce Services' Labor Market Information website: <https://doe.state.wy.us/lmi/>, to industry titles and job descriptions and duties as detailed on the national ONET website: <https://www.onetonline.org/>.



Career Pathways Chart and Maps

Career Pathways Chart



Career Pathways Map Natural Resources Extraction & Processing

CAREER PATHWAYS FOR ADULT EDUCATION Natural Resources Extraction & Processing (Including Oil & Gas)

Industrial & Engineering Technology Career Cluster

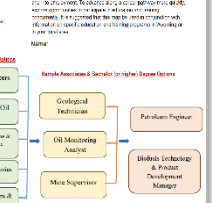
Sector Description

The natural resources extraction and processing industry is a key sector of the economy. It includes the extraction and processing of oil, gas, coal, and other minerals. The industry is characterized by a high level of technical skill and a strong emphasis on safety. The sector is also characterized by a high level of investment in research and development, and a strong emphasis on innovation.

Additional Occupational Skills

- Safety
- Problem Solving
- Teamwork
- Communication
- Customer Service
- Leadership
- Critical Thinking
- Creativity
- Innovation
- Adaptability
- Flexibility
- Resilience
- Stress Management
- Time Management
- Organization
- Attention to Detail
- Accuracy
- Precision
- Consistency
- Reliability
- Dependability
- Integrity
- Honesty
- Transparency
- Accountability
- Responsibility
- Ownership
- Initiative
- Proactivity
- Anticipation
- Alertness
- Awareness
- Vigilance
- Focus
- Concentration
- Persistence
- Perseverance
- Determination
- Commitment
- Dedication
- Devotion
- Loyalty
- Fidelity
- Faithfulness
- Reliability
- Dependability
- Integrity
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ADULT CAREER PATHWAYS



CAREER PATHWAYS FOR ADULT EDUCATION: Natural Resources Extraction & Processing

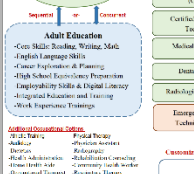
SECTOR	INDUSTRY	SKILLS	EDUCATION	TRAINING	OTHER OCCUPATION
Oil & Gas	Oil Refining	Reading, Writing, Math, Science, English, High School Equivalency Preparation, Employability Skills & Digital Literacy, Integrated Education and Training	High School Diploma or GED	Oil Refining Training Program	Oil Refiner
Coal	Coal Processing	Reading, Writing, Math, Science, English, High School Equivalency Preparation, Employability Skills & Digital Literacy, Integrated Education and Training	High School Diploma or GED	Coal Processing Training Program	Coal Processor
Uranium	Uranium Processing	Reading, Writing, Math, Science, English, High School Equivalency Preparation, Employability Skills & Digital Literacy, Integrated Education and Training	High School Diploma or GED	Uranium Processing Training Program	Uranium Processor
Other	Other	Reading, Writing, Math, Science, English, High School Equivalency Preparation, Employability Skills & Digital Literacy, Integrated Education and Training	High School Diploma or GED	Other Training Program	Other

Career Pathways Map Healthcare & Medical Technology

Career Pathways Map BLANK

CAREER PATHWAYS FOR ADULT EDUCATION Healthcare & Medical Technology Sector Description

The healthcare and medical technology industry is a key sector of the economy. It includes the extraction and processing of oil, gas, coal, and other minerals. The industry is characterized by a high level of technical skill and a strong emphasis on safety. The sector is also characterized by a high level of investment in research and development, and a strong emphasis on innovation.

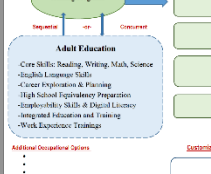


CAREER PATHWAYS FOR ADULT EDUCATION: Healthcare and Medical Technology Pathway

SECTOR	INDUSTRY	SKILLS	EDUCATION	TRAINING	OTHER OCCUPATION
Healthcare	Healthcare	Reading, Writing, Math, Science, English, High School Equivalency Preparation, Employability Skills & Digital Literacy, Integrated Education and Training	High School Diploma or GED	Healthcare Training Program	Healthcare Worker
Medical Technology	Medical Technology	Reading, Writing, Math, Science, English, High School Equivalency Preparation, Employability Skills & Digital Literacy, Integrated Education and Training	High School Diploma or GED	Medical Technology Training Program	Medical Technologist
Other	Other	Reading, Writing, Math, Science, English, High School Equivalency Preparation, Employability Skills & Digital Literacy, Integrated Education and Training	High School Diploma or GED	Other Training Program	Other

CAREER PATHWAYS FOR ADULT EDUCATION Sector Title Sector Description

The healthcare and medical technology industry is a key sector of the economy. It includes the extraction and processing of oil, gas, coal, and other minerals. The industry is characterized by a high level of technical skill and a strong emphasis on safety. The sector is also characterized by a high level of investment in research and development, and a strong emphasis on innovation.



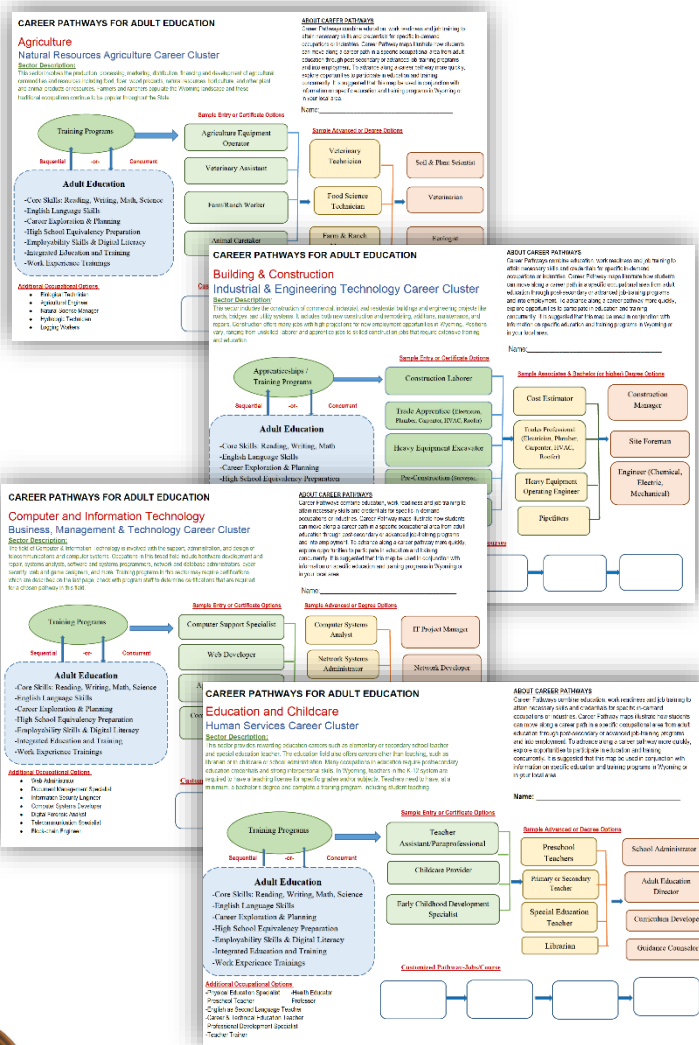
CAREER PATHWAYS FOR ADULT EDUCATION: Sector Title

SECTOR	INDUSTRY	SKILLS	EDUCATION	TRAINING	OTHER OCCUPATION
Healthcare	Healthcare	Reading, Writing, Math, Science, English, High School Equivalency Preparation, Employability Skills & Digital Literacy, Integrated Education and Training	High School Diploma or GED	Healthcare Training Program	Healthcare Worker
Medical Technology	Medical Technology	Reading, Writing, Math, Science, English, High School Equivalency Preparation, Employability Skills & Digital Literacy, Integrated Education and Training	High School Diploma or GED	Medical Technology Training Program	Medical Technologist
Other	Other	Reading, Writing, Math, Science, English, High School Equivalency Preparation, Employability Skills & Digital Literacy, Integrated Education and Training	High School Diploma or GED	Other Training Program	Other



Introducing Career Coaching and Pathways

Other Career Pathways Maps



- Agriculture
- Building & Construction
- Computer & Information Technology
- Education & Childcare
- Energy Manufacturing & Technology
- Entrepreneurship
- Financial & Business Services
- Hospitality & Tourism
- Manufacturing, Fabricating & Engineering
- Retail Trade
- Transportation & Logistics

Introducing Career Coaching and Pathways



DISCUSSION GROUPS

- At your table groups, choose a notetaker and spokesperson, discuss how you could use the chart and maps in your program

Think about:

- Partners and Community
- Program Promotion
- Orientation
- Career Success Course
- Career Exploration and Planning
- Advising
- Classroom
- Transition Planning

*Let's HARVEST
your discussions...*

- You will have 10 minutes for your discussion
- Your spokesperson will share highlights of your conversation with large group



Using Career Pathways Maps

Promotion – Recruitment

- Use maps or parts of them on their promotional materials.
- Seeing the maps in promotional materials or during orientation can inspire students to explore occupations within a specific industry with a visible, direct connection to adult education.
- Programs could share these with stakeholders to illustrate how students move from adult education into the workforce. Also, these maps can help broaden stakeholder understanding of adult education being about more than the HSE test.



Using Career Pathways Maps

Career Exploration & Planning

- Use maps in the Career Success Course to explore occupations within a specific industry and become familiar with duties and wage information relative to those occupations
- Use maps with students during the onboarding process when discussing career interests and goals.
- Students could use maps to develop their own education, training and career path.



Using Career Pathways Maps

Coaching / Advising & Transition Planning

- **Advisors could use these with students when discussing career opportunities as well as education and training programs required for specific occupations.**
- **This could be a tool for progress checks during advising sessions. Where are you now? Where do you want to be? How will you get there?**
- **Students could use their map as a way to plan for transition. Where are the training programs for my chosen field? Explore the details of those training programs.**



Using Career Pathways Maps

Instruction

- **Students could work in groups based on career interests to discuss and further research specific occupations and industries.**
- **Instructors could have students think about where certain skills they're learning in the classroom apply to specific occupations based on the duties articulated in the maps. It might be better in today's world to say "where would these skills apply in various occupations" v. "you need to learn this because it's on the test."**
- **The idea of career v. job is often addressed in the adult education classroom. The maps could be used to help students understand a lifelong career path and their place in it.**



Using Career Pathways Maps

How can we develop a Career Pathways Map using the BLANK FORM?

WY DWS

<https://doe.state.wy.us/lmi/career.htm>



Wyoming Department of Workforce Services

Research & Planning
444 W. Collins Dr.
Suite 3100
Casper, WY 82601
(307) 473-3807
Email link

"Labor Market Information (LMI) is an applied science; it is the systematic collection and analysis of data which describes and predicts the relationship between labor demand and supply." The States' Labor

Career Information

Classification of Instructional Programs (CIP) to Standard Occupational Classification (SOC) Crosswalk

- [O*NET Education Crosswalk Search](#)
- [Integrated Postsecondary Education Data System \(IPEDS\) Crosswalk links](#)

Licensed Occupations

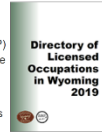
Directory of Licensed Occupations in Wyoming 2021

The *Directory of Licensed Occupations in Wyoming 2019*, compiled by the Research & Planning (R&P) section of the Wyoming Department of Workforce Services, provides detailed information about license requirements and related information for the 97 occupations required to have a license by the state of Wyoming. Forty-five licensing boards oversee the administration and enforcement of these licenses.

Requiring practitioners of some occupations to be licensed results in the assurance that these workers have a minimum level of education and competency, and also generally results in higher wages for workers in those occupations compared to those in many unlicensed occupations.

Published June 2021.
[PDF \(2.0 MB\)](#)

[Workforce-Education Connection \(WE Connect\)](#)



- ENHANCED BY
- About Research & Planning
- Benefits
- Bureau of Labor Statistics
- Career Information
- Commuting Data
- Current Employment Statistics (CES)
- Demographics of the Workforce
- Earnings Tables
- Education
- Education Costs
- Education WE Connect
- Energy Efficiency



O*NET OnLine

Help Find Occupations Advanced Searches O*NET Data Crosswalks

Occupation Keyword Search

Occupations matching "filming"

Search again:

20 occupations shown Show matches:

Code	Occupation
27-4032.00	Film and Video Editors
27-4031.00	Camera Operators, Television, Video, and Film
27-2012.00	Producers and Directors
51-9151.00	Photographic Process Workers and Processing Machine Operators
25-4022.00	Librarians and Media Collections Specialists
27-4014.00	Sound Engineering Technicians
39-3021.00	Motion Picture Projectionists
19-3093.00	Historians
51-5111.00	Prepress Technicians and Workers
27-2041.00	Music Directors and Composers
25-4011.00	Archivists
27-3023.00	News Analysts, Reporters, and Journalists
13-1011.00	Agents and Business Managers of Artists, Performers, and Athletes

ONETOnline

<https://www.onetonline.org/find/result?s=filming>

These are the same resources you could use to supplement the existing Maps.

Introducing Career Coaching and Pathways



Career Coaching / Advising

- **Career Coaching is a process that helps students identify and achieve their career goals.**
- **It's typically considered an asset-based approach whereas advising is considered a deficit-based approach**
- **A career coaching process helps students apply interests and skills to access employment opportunities.**

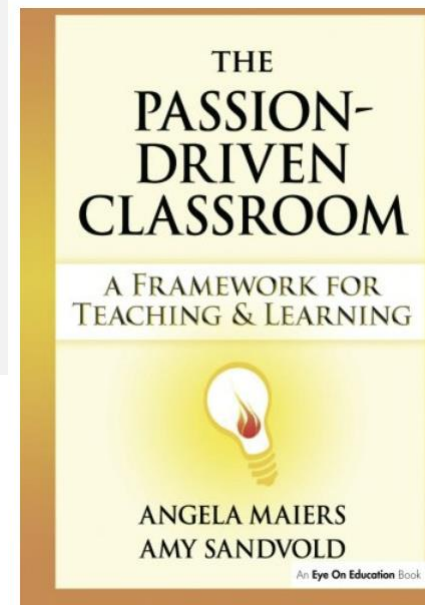


Career Coaching / Advising

STAGES OF CAREER COACHING

1. **Initiation Stage**
2. **Exploration Stage**
3. **Planning Stage**
4. **Progression Stage**
5. **Transition Stage**

Start by discussing passions...



Introducing Career Coaching and Pathways

Career Coaching / Advising

A Career Coaching Session

- How are things going?
- What's going well for you in the program? What have you learned since our last session?
- What are challenges you are experiencing with your education? What are you having difficulty with?
- Let's review your education and career goals, where are you in achieving those goals? Do you need to make any changes to your goals?
- Is there anything I can help you with?

Who am I?



Where am I headed?



How do I get there?



PAIR PRACTICE

- Choose a partner (teams of two), one of you will be the coach and the other a student, use one of the maps you've been given: Natural Resources, Healthcare or Blank

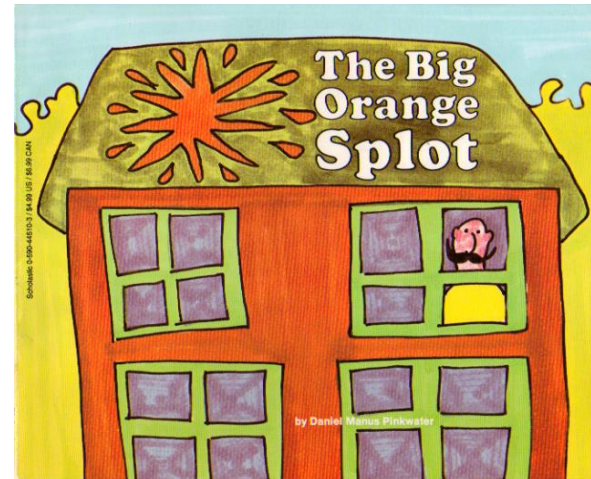
The 'coach' will use the map to talk with the 'student' about an industry, occupations within that industry, knowledge and skills, goal setting and planning, training programs, etc.

Let's HARVEST your coaching session...

- You will have 15 minutes for your coaching session
- Be prepared to share highlights of your coaching session



Bedtime Story The Big Orange Splot



Questions:
Jeff Fantine
jeff.fantine@gmail.com



**Thank you for your participation in today's session
and for your dedication to implementing career
pathways. Thank you for your work in adult
education and for all that you do for our students.
You are rockstars!**

