



Associate of Applied Science in Highway Maintenance Management

Technical Advisory Committee Meeting

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Denver, CO

Susan Baillargeon, Front Range Community College
Paul Woods, Colorado Department of Transportation



ASSOCIATE OF APPLIED SCIENCE (AAS) IN HIGHWAY MAINTENANCE MANAGEMENT FRONT RANGE COMMUNITY COLLEGE



- Designed for current highway maintenance supervisors or highway maintenance workers wanting to promote into supervisory–/managerial–level positions within federal, state, county, or municipal public works agencies and private sector industry partner organizations
- Instruction in both the management (e.g., supervision, budgeting, project management) and technical (e.g., roadway pavement; bridges; roadside facilities and grounds; highway safety; winter storm operations; traffic operations; emergency/incident management; environmental protection) aspects of highway maintenance and operations

ASSOCIATE OF APPLIED SCIENCE (AAS) IN HIGHWAY MAINTENANCE MANAGEMENT FRONT RANGE COMMUNITY COLLEGE



- Co-created with Colorado Department of Transportation
- 100% online making it accessible throughout Colorado and nationally
- First and only highway maintenance management degree in the nation



INDUSTRY PARTNERS

- Federal Highway Administration (FHWA)
 - National Highway Institute (NHI)
- Colorado Local Technical Assistance Program (LTAP)
- American Public Works Association (APWA)
- American Traffic Safety Services Association (ATSSA)
- Colorado Asphalt Pavement Association (CAPA)

ABOUT FRONT RANGE COMMUNITY COLLEGE



- Vision
 - All students at Front Range Community College will accomplish their educational and career goals. We will be recognized for **our *singular focus on student success***, our exceptional teaching, our strong commitment to diverse learners and communities, and our effective business and community partnerships.
- Campuses
 - **Larimer (Fort Collins)**
 - Boulder County (Longmont)
 - Westminster
- Programs available fully online
- AAS in Highway Maintenance Management program demonstrates FRCC's commitment to dynamic programming through community and industry partnerships.



PROGRAM CURRICULUM

- General Education courses (5 courses; 15–16 credits)
- Required Management (MAN) courses (6 courses; 18 credits)
- Required Highway Maintenance Management (HWY) courses (15 credits)
- Elective HWY courses (12 credits)
 - Concentration areas:
 - Highway engineering technician
 - Highway materials and structures
 - Highway equipment operations and management
 - Incident management, emergency management, and weather events
 - Environmental

EARNING ACADEMIC CREDIT

- AAS program is accessible throughout Colorado
- Online courses are available for all required General Education and Management courses
- Most required and elective Highway Maintenance Management course credits are earned through industry training, certifications, and successful work experience (not classroom)
- Minimum of 15 credits must be earned through FRCC classroom or online courses

REQUIRED MANAGEMENT COURSES

- Human Relations in Organizations
- Principles of Management
- Principle of Supervision
- Leadership
- Corporate Ethics & Social Responsibility
- Project Management in Organizations

REQUIRED HIGHWAY MAINTENANCE MANAGEMENT COURSES

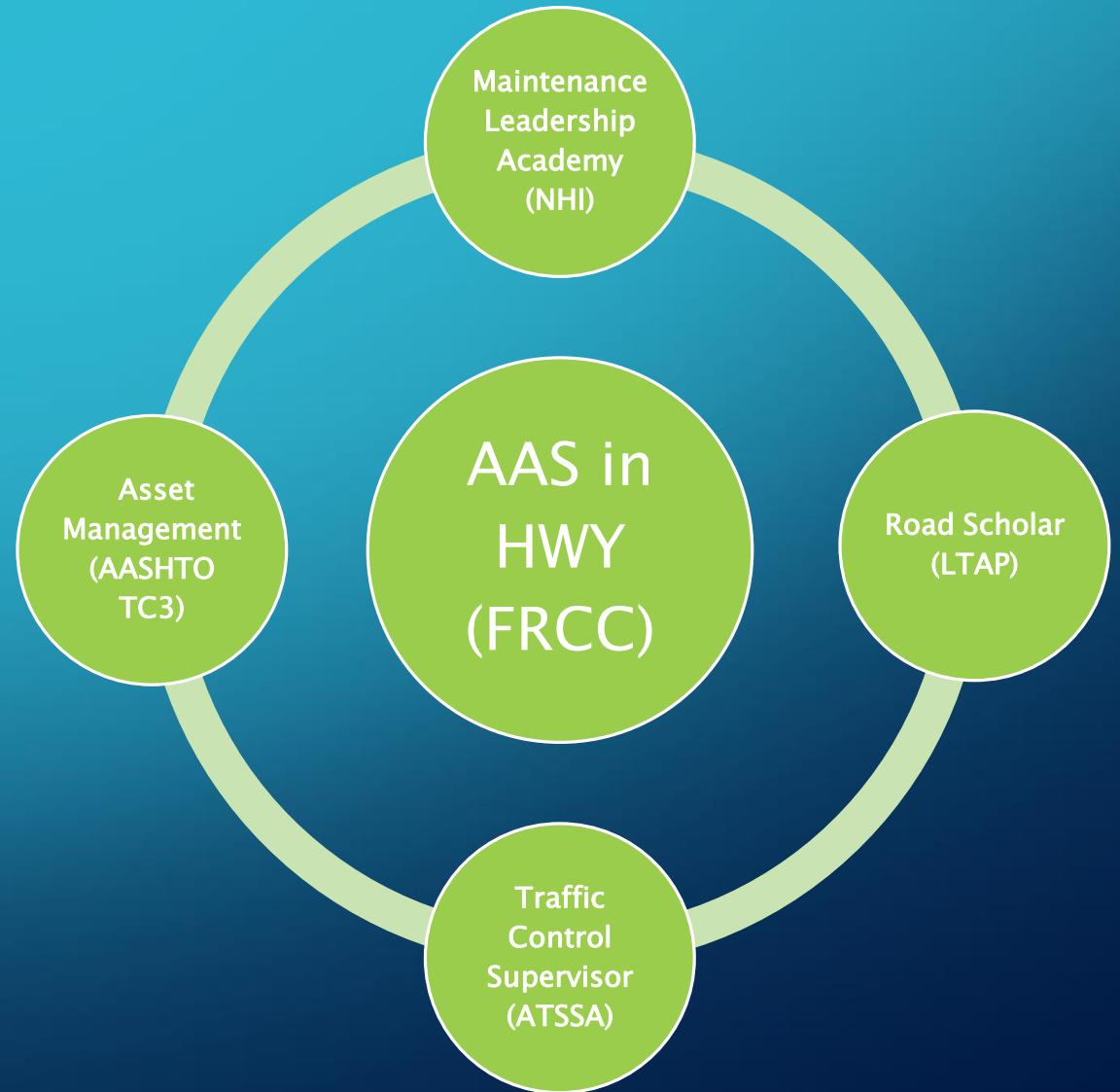
- HWY 100 – Highway Maintenance and Operations Safety (1 credit)
- HWY 101 – Introduction to Highway Maintenance and Operations (3 credits)
- HWY 105 – Traffic Control (2 credits)
- HWY 110 – Highway Asset Management (1 credit)
- HWY 115 – Highway Preventive Measures and Preservation Treatments (2 credits)
- HWY 255 – Highway Maintenance Leadership (4 credits)
- Complete one:
 - HWY 288 – Highway Maintenance and Operations Field Practicum (2 credits)
 - HWY 289 – Highway Maintenance and Operations Capstone (2 credits)

ELECTIVE HIGHWAY MAINTENANCE MANAGEMENT COURSES

- HWY Internships
 - HWY 180/280 – Highway Engineering Technician
 - HWY 181/281 – Highway Materials and Structures
 - HWY 182/282 – Highway Equipment Operations and Management
 - HWY 183 – Environmental
 - HWY 283 – Incident Management, Emergency Management, and Weather Events
 - HWY 184 – Highway Maintenance Management
- HWY internships provide a way to earn credit towards graduation for successful highway maintenance work experience

HIGHWAY MAINTENANCE TRAINING OPPORTUNITIES

- Don't reinvent the wheel
 - Build upon existing training and certifications provided by industry partners in highway maintenance



HIGHWAY MAINTENANCE MANAGEMENT COURSES

- HWY 100 – Highway Maintenance and Operations Safety (1 credit)
 - To be developed with industry partners
- HWY 101 – Introduction to Highway Maintenance and Operations (3 credits)
 - Under development by Front Range Community College
- HWY 105 – Traffic Control (2 credits)
 - American Traffic Safety Services Association (ATSSA) – Traffic Control Supervisor
 - Colorado Contractors Association (CCA) – Traffic Control Supervisor

HIGHWAY MAINTENANCE MANAGEMENT COURSES

- HWY 110: Highway Asset Management (1 credit)
 - National Highway Institute (NHI) – Highway Asset Management (NHI-136106A)
- HWY 115: Highway Pavement Preventive Measures and Preservation Treatments (2 credits)
 - NHI – Web-based training (NHI-131110)
- HWY 255: Highway Maintenance Leadership (4 credits)
 - NHI – Maintenance Leadership Academy (NHI-134063)

LEVERS FOR EMPLOYEE/STUDENT SUCCESS

- Program Director source of guidance, support, and encouragement
- HWY 101 course (Introduction to Highway Maintenance and Operations) instructed by the Program Director and is used to advise students, assist with the PLA process, and direct students to available academic support services leading to success
- Industry partnerships ensure the AAS program uses current industry standards and advances best practices in highway maintenance and operations
- Prior Learning Assessment (PLA) credit will jump-start an experienced employee toward graduation **(will not start**

WHAT IS PRIOR LEARNING ASSESSMENT? (PLA)

Prior Learning Assessment is the process for evaluating knowledge and skills to award college credit for learning from:



On-the-Job Training



Independent Study



Military and Volunteer Service

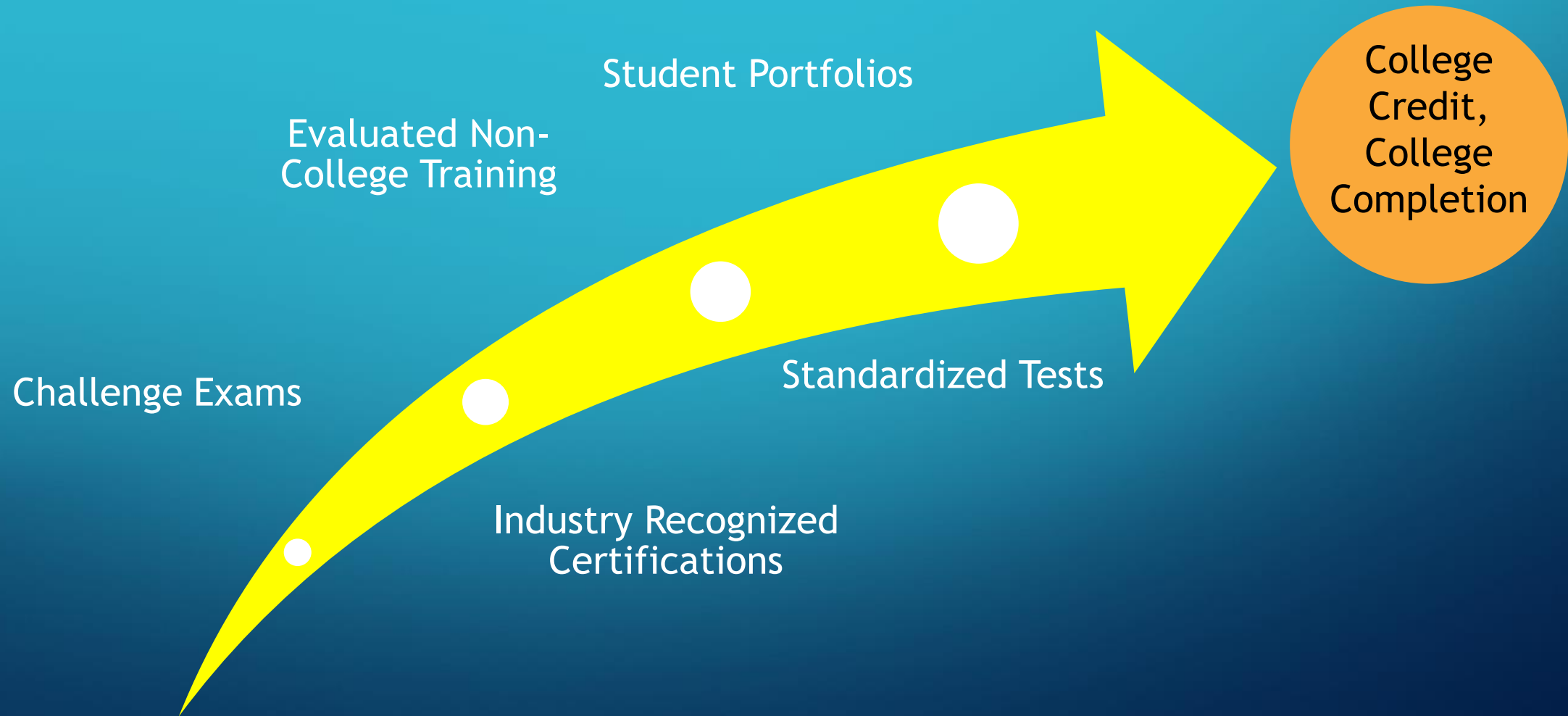


Training Courses and/or Certifications



Work Experience

THE VARIETY OF PLA METHODS



BRIDGETT N. RHODES: MORE THAN HALFWAY THERE

- Earns 15 credits for highway maintenance course requirements from previous training which has been evaluated for college credit
- Earns 12 elective credits for successful work experience in Highway Materials and Structures, and in Highway Equipment Operations and Management concentrations
- Earns 4 credits for MAT 121 through challenge examination
 - Can take further standardized tests, if desired, to meet more of the General Education requirements
- Earns 3 credits for ENG 131 through student portfolio evaluation process demonstrating technical writing skills
- **BEGINS program with 34 credits** earned of the required 60 for the degree

ESTIMATED PROGRAM COMPLETION TIME AND COST

- Time to complete degree will depend upon prior work experience (earned Prior Learning Assessment (PLA) credit)
 - Assumes taking one online course per term (3 courses per year)
 - Assumes completing industry–provided training/certifications concurrently with courses
- Cost to complete degree will depend upon prior work experience (i.e., PLA credit) and employer financial assistance (e.g., tuition assistance and paid industry partner training/certifications)

PROGRAM COMPLETION SCENARIOS

(ESTIMATES SUBJECT TO CHANGE)

| Entry-Level Maintenance Worker (no relevant experience) | Cost to Complete Program | Time to Complete Program |
|--|----------------------------------|--------------------------|
| Entry-Level Maintenance Worker (no relevant experience) | | 4 years |
| <ul style="list-style-type: none"> No employer financial assistance | \$21,800 (\$27,000 out-of-state) | |
| <ul style="list-style-type: none"> Employer financial assistance | \$5,800 (\$8,000 out-of-state) | |
| Experienced Maintenance Worker | | 2 years |
| <ul style="list-style-type: none"> No employer financial assistance | \$13,100 (\$16,000 out-of-state) | |

FINAL NOTES

- Program launch date: August 2019
- Free Front Range Community College admission
- Apply TODAY
- Fall semester enrollment is OPEN
- How you can be a partner
 - Promote the AAS in Highway Maintenance Management program
 - Identify industry–provided training and certifications that should be evaluated for college credit to meet degree requirements

MORE INFORMATION



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• Questions

Thank you!

