Are You Ready for Graduation Pathways? 
Employability Skills, Compliance and Innovation 
April 17, 2019

Ben Carter, Director of Workforce and Innovation Indiana Department of Education
Andy Tucker, Director Postsecondary Readiness Colorado Department of Education
Ryan Gensler, Director of National Partnerships CareerWise Colorado
Graduation Pathways: 
Employability Skills, Compliance and Innovation

Benjamin Carter
Office of Innovation
Director of Workforce and Innovation
Graduation Pathways

1. Credits
2. Learn & Demonstrate Employability Skills
3. Postsecondary-Ready Competencies
Overview

2. Learn & Demonstrate Employability Skills

INDIANA'S EMPLOYABILITY SKILLS BENCHMARKS

MINDSETS
Intellectual Risk Taking - Develops a healthy balance of mental, social/emotional and physical well-being; understands that life-long learning are necessary for long-term career success; willingness to work and learn and continually apply new knowledge

LEARNING STRATEGIES
Written Communication - Applies reading, writing, math and scientific principals and procedures
Decision Making - Utilizes critical thinking skills to make informed decisions based on options, rewards, risks, limits and goals
Overview

Learn & Demonstrate Employability Skills

- Project-Based
- Service-Based
- Work-Based

Experience + Student Work Product
What is the work product that is required?
• Examples include but are not limited to: presentation, letter of recommendation, letter of employment verification, resume, reflection of experience, etc.

When can these experiences begin?
• Anytime between July 1 prior to freshman year through September 30 prior to submission of the Graduate Report
• Can be during the school day, after school, during breaks, etc.
How long do they have to last?
• There is not a set number of hours for an Employability Skills experience
• Schools and districts must ensure the experience has quality, scope, and value for the student

How do schools validate completion of this requirement?
• By evaluating the student’s product and tracking the completion of the experience on the student’s transcript or through the school’s Student Information System (SIS).
How do I know if my experience satisfies the requirements?
• Each experience must be aligned to a specific set of design principles listed in the Policy Guidance Document.

Can courses be used to satisfy this requirement?
• In the Policy Guidance document, courses lending themselves to executing the design principles of each experience are listed, though completion of the courses alone does not fulfill this requirement.
• However, these experiences are not limited to these courses alone. If a student’s experience or a course curriculum aligns with the design principles of any of the employability skills experiences, then that experience will qualify for this requirement.
2

Learn & Demonstrate Employability Skills

- Courses
- Part-time employment
- School-based enterprises
- Apprenticeships
- Internships

- Career and Technical Student Organizations
- Athletics
- After school programs (i.e., Marching Band)
Employability Skills

2 Learn & Demonstrate Employability Skills

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ARCHITECTURE • CONSTRUCTION • ENGINEERING

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My Vision

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Employability Skills

Learn & Demonstrate Employability Skills

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Indiana Department of Education
Website: [www.doe.in.gov/graduation-pathways](http://www.doe.in.gov/graduation-pathways)

Email: [DOEGradpathways@doe.in.gov](mailto:DOEGradpathways@doe.in.gov)
Implementation of Graduation Guidelines

Andy Tucker
Director- Postsecondary and Workforce Readiness
# Graduation Guidelines

**Menu of College and Career-Ready Demonstrations**

<table>
<thead>
<tr>
<th>Advanced Placement</th>
<th>Concurrent Enrollments</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGLISH</td>
<td>MATH</td>
</tr>
<tr>
<td>AP English Language and Composition</td>
<td>AP Calculus BC</td>
</tr>
<tr>
<td>AP English Literature</td>
<td>AP Calculus AB</td>
</tr>
<tr>
<td>AP World History</td>
<td>AP Statistics</td>
</tr>
</tbody>
</table>

**ACT**
- **Speaking, Reading, Writing, Math, Science**
- Composite score: 11
- All sections must be taken

**ACT WorkKeys**
- **Technical Career Readiness Certificate**
- **Math**
- Score of 22

**Industry Certificates**
- **Math**
- Score of 22

**International Baccalaureate (IB)**
- **Math**
- Score of 5

**SAT**
- **Math**
- Score of 600

**Accredited and Recognized Programs**
- **English**
- Score of 600

*www.cde.state.co.us/postsecondary/graduationguidelines*
Timeline for implementation

- **Adopt** revisions to meet or exceed state guidelines
- **Decide on** menu of options for students to demonstrate college and career readiness
  - 2015-16

- **Prepare to implement** with eighth-graders
  - 2016-17

- **Implement**
  - 2017-18 starting with ninth-graders
  - 2018-19 with ninth and 10th-graders
  - 2019-20 with ninth, 10th and 11th-graders
  - 2017-20

- **Graduate**
  - 2020-21 first class under revised guidelines
ICAP - Individual Career and Academic Plan
- is:

- A **foundational tool** that gives students ownership of the process that helps them explore their unique talents and aspirations, participate in career and postsecondary options, and create pathways to financial success after high school.

  Explore
  Experience
  Engage
  Excel

https://www.cde.state.co.us/postsecondary/icap
Graduation Guidelines begin with the implementation of: Individual Career and Academic Plans (ICAP), Colorado Academic Standards for all content areas including Civics and 21st Century Essential Skills.
## Traditional Assessments and Demonstrations

### ACCUPLACER

<table>
<thead>
<tr>
<th>Classic</th>
<th>ENGLISH</th>
<th>MATH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>62 on Reading Comprehension OR 70 on Sentence Skills</td>
<td>61 on Elementary Algebra</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Next Generation</th>
<th>ENGLISH</th>
<th>MATH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>241 on Reading OR 236 on Writing</td>
<td>255 on Arithmetic (AP) OR 230 on Quantitative Reasoning, Algebra, and Statistics (QAS)</td>
</tr>
</tbody>
</table>

**ACCUPLACER** is a computerized test that assesses reading, writing, math and computer skills. The results of the assessment, in conjunction with a student’s academic background, goals and interests, are used by academic advisors and counselors to place students in college courses that match their skill levels.

### ACT

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>MATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 on ACT English</td>
<td>19 on ACT Math</td>
</tr>
</tbody>
</table>

**ACT** is a national college admissions exam. It measures four subjects – English, reading, math and science. The highest possible score for each subject is 36.

### SAT: Scores updated for new SAT (2016)

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>MATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>470</td>
<td>500</td>
</tr>
</tbody>
</table>

The SAT is a college entrance exam that is accepted or required at nearly all four-year colleges and universities in the U.S. The current SAT includes sections on reading, writing and math. The highest possible score for each section is 800.

### Concurrent Enrollment

**ENGLISH**
- Passing grade per district and higher education policy

**MATH**
- Passing grade per district and higher education policy

Concurrent enrollment provides students the opportunity to enroll in postsecondary courses, simultaneously earning high school and college credit. School districts and institutions of higher education each determine passing grades for credit and concurrent enrollment. An eligible concurrent enrollment course is 1) the prerequisite directly prior to a credit-bearing course or 2) a credit-bearing course.

### Advanced Placement

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>MATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

AP exams test students’ ability to perform at a college level. Districts choose which AP exams will fulfill this requirement. Scores range from 1 to 5 (highest).

### International Baccalaureate (IB)

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>MATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

IB exams assess students enrolled in the official IB Diploma Programme. Courses are offered only at authorized IB World Schools. Scores range from 1 to 7 (highest).

### ASVAB

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>MATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>31 on the AFQT</td>
<td>31 on the AFQT</td>
</tr>
</tbody>
</table>

The Armed Services Vocational Aptitude Battery (ASVAB) is a comprehensive test that helps determine students’ eligibility and suitability for careers in the military. Students who score at least 31 are eligible for service (along with other standards that include physical condition and personal conduct). Students who take the ASVAB are not required to enlist in the military.
# Performance Assessments

## ACT WorkKeys – National Career Readiness Certificate

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>MATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bronze or higher</td>
<td>Bronze or higher</td>
</tr>
</tbody>
</table>

ACT WorkKeys is an assessment that tests students’ job skills in applied reading, writing, mathematics and 21st century skills. Scores are based on job profiles that help employers select, hire, train, develop and retain a high-performance workforce. Students who score at the bronze level (at least 3) in applied mathematics, mapping and reading earn the ACT’s National Career Readiness Certificate.

## Collaboratively developed, standards-based performance assessment

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>MATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>State-wide scoring criteria</td>
<td>State-wide scoring criteria</td>
</tr>
</tbody>
</table>

(In development)

## District Capstone

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>MATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individualized</td>
<td>Individualized</td>
</tr>
</tbody>
</table>

A capstone is the culminating exhibition of a student’s project or experience that demonstrates academic and intellectual learning. Capstone projects are district determined and often include a portfolio of a student’s best work.

## Industry Certificate

<table>
<thead>
<tr>
<th>ENGLISH</th>
<th>MATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individualized</td>
<td>Individualized</td>
</tr>
</tbody>
</table>

Industry certificates are credentials recognized by business and industry. They are district determined, measure a student’s competency in an occupation and they validate a knowledge base and skills that show mastery in a particular industry.
### Districts have the authority to adapt the college and career demonstrations necessary to earn a standard high school diploma to accommodate for: English learners, gifted students and student with disabilities.
Four main categories with skills embedded

1. Personal Skills (self-awareness, personal responsibility, resilience, etc.)
2. Entrepreneurial skills (critical thinking, creativity, informed risk taking, etc.)
3. Civic/Interpersonal Skills (collaboration, communication, civic engagement, character)
4. Professional skills (time management, career awareness, financial literacy, etc.)
Early learnings

• Fear changing to excitement re: flexibility
• Different communities = different needs
• Lack of understanding of district-determined items
• Need for sharing of promising practices
• Need to remind stakeholders consistently of connections to ICAP and Essential Skills
Locations of PWR symposia

Members-Front Range Graduation Guidelines Committee
Multiple pathways for students increase across the state

• Concurrent enrollment expansion
  • Since 2012, Concurrent Enrollment participation has increased from 19% of all students (grades 9-12) to 35%

• Industry certificate attainment
  • Commitment to work-based learning and career development
  • Additional funding to support expansion- Career Development Incentive Program

• Robust work in development of capstone projects- continuum
  • Gunnison School District → Roaring Fork School District

• Essential skills embedded in newly-revised Colorado Academic Standards
AN INTERMEDIARY MODEL FOR MODERN YOUTH APPRENTICESHIP
Apprentices earn a wage while gaining valuable workplace experience, a nationally recognized industry certification and debt-free college credit.

Industry benefits from tangible financial ROI as it makes the shift from being consumers of talent to producers of talent.

K-12 and higher education institutions improve student outcomes with increased student engagement and attendance, graduation rates and college-credit attainment.
Here's how it works:

Careerwise apprentices split time between school, training centers, and work on a schedule that works for students and businesses.

### AT HIGH SCHOOL
Core academic courses at school (e.g., math), some community college coursework

<table>
<thead>
<tr>
<th>Year</th>
<th>Days a Week</th>
<th>Hours a Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>YEAR 1</td>
<td>~3</td>
<td>12 - 16</td>
</tr>
<tr>
<td>YEAR 2</td>
<td>~2</td>
<td>20 - 24</td>
</tr>
<tr>
<td>YEAR 3</td>
<td>NA</td>
<td>32-40</td>
</tr>
</tbody>
</table>

### ON-THE-JOB
On-the-job training, in form of occupation, rotation or projects

<table>
<thead>
<tr>
<th>Year</th>
<th>Hours a Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>YEAR 1</td>
<td>12 - 16</td>
</tr>
<tr>
<td>YEAR 2</td>
<td>20 - 24</td>
</tr>
<tr>
<td>YEAR 3</td>
<td>32-40</td>
</tr>
</tbody>
</table>

### AT TRAINING CENTER
Multi-skill training curriculum in pathway-specific skills

### COLLEGE COURSES AND/OR TECHNICAL TRAINING BASED ON STUDENT GOALS & READINESS
The instruction students receive provides them with debt-free college credit and the knowledge they need for nationally-recognized industry certification. Typically, courses are taken in the second half of the apprenticeship.
### SIX CAREER PATHWAYS and 16 occupations

<table>
<thead>
<tr>
<th>Advanced Manufacturing</th>
<th>Information Technology</th>
<th>Financial Services</th>
<th>Business Operations</th>
<th>Healthcare</th>
<th>Education (Pilot in 2019)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production technician</td>
<td>Computer Technician</td>
<td>Accounting Clerk</td>
<td>Project Coordinator</td>
<td>Certified Nursing Assistant (CNA) to Licensed Practical Nurse (LPN)</td>
<td></td>
</tr>
<tr>
<td>Quality control inspector</td>
<td>Software QA Tester</td>
<td>Insurance Services Expert</td>
<td>Purchasing Coordinator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintenance technician</td>
<td>Junior Coder</td>
<td>Financial Coordinator</td>
<td>Operations Specialist</td>
<td></td>
<td>Paraprofessional to Licensed Teacher</td>
</tr>
<tr>
<td>Logistics</td>
<td>University of Colorado Denver</td>
<td>Customer Support</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sample Employers**

- CoorTek
- InterTech Plastics
- Nordson
- Alterra Mountain Company
- Pinnacol Assurance
- EKS&H
- Colavria Hospitality
- Home Advisor
- Vivage
- Otter Box
- SCL Health
- Skillful
- Sava Senior Care
- Dedicated to Excellence in Early Childhood
# After Apprenticeship

<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>At High School</strong>&lt;br&gt;Core academic courses at school (e.g., math); some community college coursework</td>
<td>~3 days a week</td>
<td>~2 days a week</td>
<td>NA</td>
</tr>
<tr>
<td><strong>On-the-Job</strong>&lt;br&gt;On-the-job training, in form of occupation, rotation or projects</td>
<td>12 - 16 hours a week</td>
<td>20 - 24 hours a week</td>
<td>32-40 hours a week</td>
</tr>
<tr>
<td><strong>At Training Center</strong>&lt;br&gt;Multi-skills training curriculum in pathway-specific skills</td>
<td>College courses based on your goals &amp; readiness&lt;br&gt;The instruction you receive will provide you debt-free college credit and the knowledge you need for your nationally-recognized industry certification. Typically, courses are taken in the second half of apprenticeship.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Student signs on as a full-time employee**

**Option Multiplier**

**Student continues education**

with 2- or 4-year degree
Swiss firms saw an ROI of 10% during the training period, and additional ROI once apprentices became full-time employees.

Companies are projected to earn positive ROI on apprentice work.

ILLUSTRATIVE WAGES AND PRODUCTIVITY, RELATIVE TO STANDARD FTE
## EXPECTED IMPACT

<table>
<thead>
<tr>
<th>Business</th>
<th>Apprentice</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Pipeline of 21\textsuperscript{st} century workers</td>
<td>• Skills and exposure</td>
</tr>
<tr>
<td>• Positive ROI</td>
<td>• Debt-free college credit</td>
</tr>
<tr>
<td>• Reduction in hiring costs</td>
<td>• Valued industry credential</td>
</tr>
<tr>
<td>• Increased retention</td>
<td>• Established professional network</td>
</tr>
<tr>
<td>• Loyal, engaged employees</td>
<td>• ~$30K earnings over course of apprenticeship</td>
</tr>
<tr>
<td>• Increased innovation</td>
<td></td>
</tr>
</tbody>
</table>
**CAREERWISE COORDINATES STAKEHOLDERS**

**TO BUILD A STATEWIDE YOUTH APPRENTICESHIP SYSTEM THAT’S SET UP FOR TOTAL SUCCESS**

### Employers
- Recruit participating employers
- Support ID of workforce needs and occupation selection
- Provide HR and interview support
- Support job posting development
- Host online marketplace for apprenticeship applications
- Train supervisors & coaches
- Provide occupation-specific training plans & facilitate process to select training provider(s)
- Provide dedicated relationship manager

### K-12 & Higher Ed
- Provide quality framework and onboarding tools
- Train counselors, teachers and leaders
- Support recruitment & communication plans
- Provide access to career exploration tools & assessments
- Provide resume and cover letter templates
- Support partners with scheduling and budgeting
- Support standards mapping for credit accrual

### Apprentice
- Offer informational events and materials
- Provide application sessions, including resume training
- Host online apprenticeship marketplace for apprenticeship applications
- Run professionalism bootcamp
- Provide on the job coaching support
- Offer single point of contact through CareerWise relationship manager
- Track competency achievement through LMS

### National, State & Local Players
- Liaise with state agencies to align system incentives and address barriers
- Identify policy changes required
- Partner with BEL Commission
- Provide community readiness framework and application to support geographic expansion
- Operate a community partnership model for interested communities across the state
- Provide tools and resources to other states interested in work
<table>
<thead>
<tr>
<th>Year</th>
<th>Enrolled Apprentices</th>
<th>Employers</th>
<th>Pathways</th>
<th>Training Plans</th>
<th>Communities</th>
<th>School Districts</th>
<th>Participating Schools</th>
<th>Higher Ed Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>116</td>
<td>40</td>
<td>4</td>
<td>10</td>
<td>3</td>
<td>25</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>2018</td>
<td>240</td>
<td>70</td>
<td>5</td>
<td>12</td>
<td>4</td>
<td>5</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>2019</td>
<td>450</td>
<td>125+</td>
<td>7</td>
<td>14+</td>
<td>5</td>
<td>10</td>
<td>50</td>
<td>9</td>
</tr>
</tbody>
</table>

**Pathways:** Adv Mfg, IT, Biz Ops, Financial Services, Healthcare, Education, Culinary Arts

**Communities:** Front Range, Western Slope, Northern Colo., Eagle County, Estes Park

**Schoool Districts:** Cherry Creek, DPS, Eagle County, Estes Park, Jeffco, Mesa 51, Poudre, Thompson, Westminster, Weld RE-4
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*Sessions will include:
  • Graduation Pathways (1/2-day session with Ben Carter)
  • Helping Students Pave Their Postsecondary Path with Career Development and Advisement Strategies
  • Legislative updates
  • Power of the IndianaCareerExplorer.com
  • Many workshops on social emotional health
  • Self-care workshop with Dr. Gail Gorke!

Register Today!
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Get Connected
Let’s connect to improve the lives of youth!

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