|  |  |
| --- | --- |
|  | Science, Technology, Engineering, and Mathematics Occupational Pathway  Youth Apprenticeship  Related Instruction Guide |

# Recommendations

These recommendations are intended to be used by the YA Consortiums to determine appropriate related technical instruction for the youth apprenticeship programs in the Science, Technology, Engineering, and Mathematics (STEM) occupational area. These recommendations are not all-inclusive.

# Related Instruction Credits

The minimum number of related instruction credits for youth apprentices per year is indicated below. Youth apprentices may take more related instruction courses than the minimum required. No matter the options offered for the related instruction, youth apprenticeship students must receive high school credit toward graduation.

Options for related instruction include the following. Students must complete one of the options below.

| Course Options | Minimum Number of Credits |
| --- | --- |
| High School Course | 1 high school credit per year |
| College Course | 3 college credits per year |
| Other options: employer provided training, online learning, independent study, etc. | 1 high school credit (options may be combined in various ways but must be equal to one high school credit—the student must receive high school credit toward graduation for this work) |

# Related Instruction options

Related instruction must be provided to all youth apprentices to support the attainment of knowledge necessary to master the competencies. Courses selected for related instruction should be aligned to the competencies identified in the program On-the-Job Learning Performance Standards Guide.

Related courses can be drawn from a variety of options:

| Type | Description |
| --- | --- |
| Registered Apprenticeship Bridge Courses | Youth apprentices may take courses that are part of the registered apprenticeship at local technical colleges or at other technical colleges online. These courses are excellent options for students because they provide a pathway for the student to seamlessly bridge into registered apprenticeship having completed some of the required coursework. |

|  |  |
| --- | --- |
| Type | Description |
| College Transcripted/Dual Credit Courses | Transcripted credit courses (also referred to as dual credit) provide an opportunity for the student to earn college credit directly from the college. Usually offered through the technical college, these courses may be taught by a technical college instructor or a high school instructor who holds an appropriate credential. Transcripted credit courses are good options because they allow students to earn credit toward a degree at the technical college or sometimes toward related instruction in a registered apprenticeship. |
| High School Courses | High school courses that relate to the apprenticeship job competencies can be used for related instruction. Sometimes these courses can be articulated with the local technical college for advance standing. If the student goes on to take courses at the technical college, advance standing may be awarded for the course based on an articulation agreement between the high school and the college. |
| Other Options | Other options to help students learn related instruction content include:   * Employer provided training * Online courses provided by professional organizations * Independent study courses offered at the local high school   These options can be combined in various ways provided they are related to the competencies in the On-the-Job Learning Performance Standards Guide and meet the minimum number of hours required for one high school credit. |

# Checklist for Course Selection

When choosing the courses for a youth apprenticeship using the competencies in the On-the-Job Learning Performance Standards Guide, consider these questions or refer to the decision flowchart.

* Does the course bridge to a registered apprenticeship?
* Does the course apply to a related college program?
* Does the course qualify for dual credit?
* Does the course qualify as a Perkins Pathway CTE course?
* Is the course required for an occupation certification?

If YES to any above:

* Is the course accessible to the student?  
  *NOTE:* *Course~~s~~ accessibility is determined by district or high school availability, transportation, course supply accessibility, course offering timeline, and distance or virtual learning resources required.*

If NO to any above, contact the DWD YA Staff through the YA mailbox ([ya@dwd.wisconsin.gov](mailto:ya@dwd.wisconsin.gov)) to discuss options.



# Opportunities for Registered Apprenticeship Bridge

The following programs can bridge into a registered apprenticeship.

|  |  |
| --- | --- |
| **Youth Apprenticeship** | **Registered Apprenticeship** |
| Bioscience Laboratory Foundations, Bioscience Laboratory Applications | Biotechnology Lab Support Assistant |

# Bridged Courses to Registered Apprenticeship

The following courses bridge to the Biotechnology Lab Support Assistant registered apprenticeship.

|  |  |  |
| --- | --- | --- |
| Course # | Course Title | Credits |
| 10-070-103 | [Basic Laboratory Methods in a Regulated Environment](javascript:__doPostBack('ctl00$MainContainer$ProgramCourseConfiguration$RadGrid_ReadOnly$ctl00$ctl04$rptCourseInfos$ctl00$lnkCourseInfoTitle','')) | 3 |

Bioscience Pathways

# Suggested Related Instruction Courses for Bioscience PATHWAYS

The following courses are suggested as options for related instruction because they are aligned to the apprenticeship competencies in the On-the-Job Learning Performance Standards Guide. These recommendations are not all-inclusive.

**Suggested College Courses (titles are representative)**

| **Course** | **Credits (College)** | **Bioscience Foundations** | **Bioscience Lab Applications** |
| --- | --- | --- | --- |
| **Biotechnology Applications** | 3 | X | X |
| **Chemistry** | 3 | X | X |
| **Statistics** | 3 | X | X |

Engineering Pathways

# Suggested Related Instruction Courses FOR Engineering Pathways

The following courses are suggested as options for related instruction because they are aligned to the apprenticeship competencies in the On-the-Job Learning Performance Standards Guide. These recommendations are not all-inclusive.

**Suggested College Courses (titles are representative)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Course** | **Credits (College)** | **Engineering Drafting** | **Mechanical/Electrical Engineering** | **Civil Engineering** |
| **Introduction to Engineering** | 3 | X | X | X |
| **CAD/Mechanical Drawing** | 3 | X | X | X |
| **Physics** | 3 | X | X | X |
| **Blueprint Reading** | 3 | X | X | X |
| **Electronics** | 3 |  | X |  |

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