Indiana STEM Teacher Recruitment Fund Grant

Application and program administered by:

Indiana Commission for Higher Education

101 West Ohio Street, Suite 300
Indianapolis, IN 46204
## TABLE OF CONTENTS

I. Timeline ........................................................................................................................................ 1

II. Background .................................................................................................................................. 2

III. Objectives ................................................................................................................................... 3

IV. Entities Eligible to Apply .............................................................................................................. 5

V. Authorized Activities and Use of Funds ........................................................................................ 5

VI. Mandatory and Preferred Activities .............................................................................................. 6

VII. Grant Recipients, Award Amounts and Budget ....................................................................... 7

VIII. Required Reporting .................................................................................................................... 8

IX. Objectives and Scoring of Application ....................................................................................... 10

APPENDICES ........................................................................................................................................ 11

  APPLICATION EVALUATION - Existing Organizations and Programs .............................................. 12
  APPLICATION EVALUATION - New Organizations and Programs .................................................. 13

  Budget Worksheet ................................................................................................................................ 14

  Statute Governing STEM Teacher Recruitment Grant Fund ............................................................. 15

  Career and Technical Education STEM Courses ............................................................................. 18
I. **Timeline**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, August 24, 2015</td>
<td>Application posted on Indiana Commission for Higher Education website at <a href="http://www.in.gov/che">www.in.gov/che</a></td>
</tr>
<tr>
<td>Friday, October 9, 2015</td>
<td>Applications due at CHE by 5pm (EDT)</td>
</tr>
<tr>
<td>Monday, October 12, 2015 - Friday, October 23, 2015</td>
<td>Application review period</td>
</tr>
<tr>
<td>Wednesday, October 28, 2015</td>
<td>Grants awarded</td>
</tr>
</tbody>
</table>

The Grant Period is July 1, 2015 thru June 30, 2017. Costs incurred from July 1, 2015 until the date of grant awarding may be invoiced.

Applications can be submitted by postal mail to:

**Indiana Commission for Higher Education**

**ATTN: STEM Teacher Recruitment Grant Fund**

**101 West Ohio Street, Suite 300**

**Indianapolis, IN 46204**

Alternatively, applications can be submitted by email to the program contact or by fax at (317) 232-3260.

Program Contact:

Eugene Johnson, Assistant Commissioner
Indiana Commission for Higher Education
101 West Ohio, Suite 300
Indianapolis, IN 46204

Email: ejohnson@che.in.gov
Phone: (317) 232-2368
II. **Background**

The Indiana STEM Teacher Recruitment Fund was initially established by the Indiana General Assembly during the 2013 Legislative Session. The fund was established to:

- Encourage the growth of existing organizations that recruit science, technology, engineering, and mathematics teachers.

- Support the establishment of programs that increase the pool of high-quality science, technology, engineering, and mathematics teachers in Indiana.

- Identify recruiting organizations and programs that:
  
  - Produce high student achievement and effective and highly effective teachers.

  - Match science, technology, engineering, and mathematics teachers with school corporations\(^1\) that are encountering shortages of qualified teachers.

  - Place new science, technology, engineering, and math teachers in schools located in underserved areas.

---

\(^1\) As described in IC 20-18-2-16
III. Objectives

To provide grants to Indiana non-profit organizations and programs which: a) recruit and place science, technology, engineering and mathematics teachers in Indiana school corporations located in underserved areas or who are encountering a shortage of qualified teachers and/or b) establish programs that increase the pool of high-quality science, technology, engineering and mathematics teachers in Indiana. To be considered for a grant, organizations and programs must demonstrate prior success in recruitment, development, licensure or permitting of highly effective STEM teachers and high student achievement, or must provide a plan/framework that will accomplish these goals. Organizations and programs must match STEM teachers with Indiana school corporations that would otherwise encounter a shortage of qualified teachers in K-12 science, technology, engineering and mathematics. Grants may be used to recruit, train and place new STEM teachers and to provide pre-service and in-service teachers with skills to teach new and/or additional STEM coursework.

“New STEM teacher” means an individual who meets at least one of the following definitions:

- Has at least a baccalaureate degree from a regionally accredited institution in a STEM field but who has not previously been granted a license or permit to teach a STEM subject or content area in an Indiana public school;
- Is completing a baccalaureate degree from a regionally accredited institution in a STEM field and who also is completing teacher licensing requirements in a STEM subject or content area;
- Has work experience in a STEM field but who has not previously been licensed to teach a STEM subject or content area;
- Is licensed to teach in an Indiana public school and becomes licensed to teach a STEM subject or content area

“Pre-service teacher” means an individual who:

- Is engaged in training designed to develop them into an effective STEM teacher and;
- Plans to teach STEM coursework in an Indiana school corporation

“In-service teacher” means an individual who:

- Is currently licensed to teach in an Indiana public school and;

---

2 Entities must be registered as a non-profit domestic or foreign corporation with the Indiana Secretary of State
• Is looking to obtain training to teach in a STEM subject or content area different than their current position or to teach advanced subject or content area within their current position

The term “licensure” includes receiving the following licenses:

• Workplace Specialist license
• Transition to Teaching license
• Charter school license (IC 29-28-5-16)
• Initial, proficient, or accomplished practitioner license and the equivalent under prior administrative rules

The term “permit” includes:

• Emergency permit
• Transition to Teaching permit
• An individual eligible to teach in a charter school pursuant to IC 20-24-6-5
• Career Specialist permit

The term “completes training” includes:

• Training provided by organizations specializing in the development of K-12 STEM curricula and courses, including dual credit courses
• Training for online K-12 STEM curricula and courses that utilize a blended instructional model

STEM subjects: Individuals recruited and trained by organizations and programs to be STEM teachers must seek licensure or training in K-12 science, technology, engineering or math subjects or content areas approved by the Indiana State Board of Education. Examples include:

• Elementary science and math
• Middle school science, technology, engineering, or math
• High school science, technology, engineering, or math
• Certain middle school and high school grades courses designated as “quantitative reasoning” courses (see appendix)
• Advanced Placement and International Baccalaureate science, technology, engineering, or math courses and other similar advanced courses
• Dual credit science, technology, engineering, or math courses listed on the Indiana Core Transfer Library

• Certain career and technical education courses in STEM fields: (see appendix)

A school “encountering a shortage of qualified teachers” must:

1. Certify that the school corporation has determined the need to seek an emergency permit for a teacher of a STEM subject or course as designated by 515 IAC 9-1-19 or;
2. Have a shortage of teachers of a STEM subject or course as determined by the State Board of Education or the school corporation or;
3. Have no current employee eligible to teach the STEM subject or course.

An “underserved” Indiana school corporation must:

1. Have a complexity index determined by IC 20-43-13 greater than the state average or;
2. Must employ a program participant or contract for the services of a program participant to serve predominantly in a Title I school(s).

IV. Entities Eligible to Apply

New and existing organizations or programs may apply for grant consideration. Consideration for a grant will be given to entities that:

• Operate programs that successfully recruit, train and place new STEM teachers in grades K-12 in underserved Indiana school corporations or corporations experiencing a shortage of qualified STEM teachers;
• Operate programs which enhance the ability of in-service teachers currently employed in Indiana school corporations to teach STEM-specific coursework;
• Plan to develop and operate new programs designed to place STEM teachers in grades K-12 in underserved Indiana school corporations or corporations experiencing a shortage of qualified STEM teachers

Entities must be registered as a non-profit domestic or foreign corporation with the Indiana Secretary of State.

V. Authorized Activities and Use of Funds

Grant recipients are responsible for complying with Indiana teacher licensure and permit requirements.
Program participants must seek employment in an Indiana public school corporation, including charter schools. Seeking employment in a non-public school or a non-Indiana school corporation does not qualify the program participant to receive program support.

Conditions:

1. Individuals who accept program financial support to become licensed or trained to teach science, technology, engineering, or math subjects or content areas must apply to teach in Indiana public school corporations (including charter schools) and must accept employment or a contract for services if offered.

2. Individuals who accept program financial support and who do not apply, do not accept employment or a contract to offer services in an eligible Indiana school corporation or charter school, or do not complete an employment contract or a contract to offer services are expected to repay the amount of financial support received from the program.

3. Employment or contracting for services in a non-public school is not a permissible program outcome.

4. Employment or contracting for services with a non-Indiana school is not a permissible program outcome.

VI. Mandatory and Preferred Activities

Mandatory:

1. Licensure: the program must result in individuals becoming licensed or trained to teach in Indiana public school K-12 science, technology, engineering, or math subjects or content areas for which they were not previously eligible to teach.

2. Individuals receiving program support must seek employment in an eligible Indiana public school corporation or charter school.

Preferred:

1. Alignment with initiatives that expand STEM learning activities or enhance STEM student academic achievement, such as:
   - Math-Science Partnerships
   - 21st Century Learning Community Center grants
   - National Math & Science Initiative
• Indiana Works Councils Innovative Career and Technical Education (CTE) grants
• STEM learning activities in addition to the required instructional time
• Local school STEM activities

2. Connections to initiatives that improve STEM learning and work outcomes in which students complete:
• Diplomas or certificates of achievement with a STEM emphasis
• Industry certifications in a STEM occupation
• Dual credit or advanced placement courses in a STEM subject
• Internships or apprenticeships in a STEM field

3. Connections to Indiana STEM economic growth opportunities, such as:
• Life sciences, including medical and health technologies
• Advanced manufacturing
• Engineering and engineering technologies
• Computer and information sciences
• Agriculture and agriscience
• Energy, including renewable energy
• Other (specify)

4. Alignment with state and federal incentives that might be applicable to STEM teachers, including:
• Minority teacher scholarships (IC 21-13-2)
• Student teaching stipends for minorities or high need fields (PL 205-2013)
• State, federal, and/or teacher loan forgiveness or cancelation programs
• Tax credits for summer employment (IC 6-3.1-2-7)

VII. Grant Recipients, Award Amounts and Budget

1. Grant recipients and award amounts will be determined by Commission staff in consultation with an advisory team. Awards will be based on review of the application for funding, the scope of work and anticipated outcomes of the project.

2. The Commission and the program applicant may mutually agree to modify the requested budget.

3. Personnel and financial resource contributions by the applicant and partners will be considered as a stronger commitment to the proposal.

3 Please reference www.in.gov/irwc/2362.htm for more information on CTE grants
4. The range of awards may encompass the implementation of large-scale projects as well as the design and incubation of new ideas and innovations.

VIII. Required Reporting

Indiana Code 20-27-14-12 requires that a recipient of a grant under this chapter shall submit to the Commission a written report concerning the recipient's compliance with the program evaluation standards on the following dates:

- December 1 of each year
- July 1 of each year

Reports must include:

1) For new STEM teachers receiving support thru grants funds; the duration of service in an Indiana school corporation or the length of time committed to teaching in an Indiana school corporation

2) For pre-service or in-service teachers; average length of service for teachers supported; skills enhanced and/or new skills attained as part of participation in program using grant funds

3) The effectiveness of the program, including:
   a) Number of individuals licensed or trained to teach science, technology, engineering, or math K-12 subjects and content areas, including dual credit courses in Indiana public schools
   b) Teacher ratings according to IC 20-28-11-5, aggregated for the program’s participants

4) Student academic achievement improvements:
   a) ISTEP [math and science]
   b) Algebra I end-of-course exam
   c) Biology I end-of-course exam
   d) Dual credit or advanced placement exams in STEM subjects
   e) Industry certification exams in STEM fields
   f) Locally-adopted STEM assessments [Acuity, NWEA, etc.]
   g) STEM classes or courses added to the school schedule:
      a. Increase in number of classes or enrollment in courses already offered
      b. New STEM classes added to school’s curriculum offerings
5) Effective use of funds:
   a) Cost per participant
   b) Number of individuals who become STEM teachers
   c) Length of service expected of program participants
   d) New, pre-service or in-service teachers supported
   e) Number of schools supported (names and grade levels of schools should be included)

6) Partnerships utilized to support student and teacher achievement in STEM-related fields
   a) Outcomes of partnerships
   b) Number of partnerships created or enhanced utilizing grant funds (names of partners should be included)
IX. **Objectives and Scoring of Application**

**Existing Organizations and Programs**

- Please include a copy of your organization’s current organizational chart with your grant application

<table>
<thead>
<tr>
<th>Objective</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies to recruit, train and place new STEM teachers in grant-eligible locations or to enhance the ability of pre-service and in-service teachers to teach new or additional STEM-related coursework</td>
<td>40</td>
</tr>
<tr>
<td>Cost effectiveness of proposal including, but not limited to:</td>
<td></td>
</tr>
<tr>
<td>o New, pre-service or in-service teachers supported</td>
<td>20</td>
</tr>
<tr>
<td>o Number of K-12 public schools supported thru programs utilizing grant funds</td>
<td></td>
</tr>
<tr>
<td>STEM teacher retention strategies</td>
<td>15</td>
</tr>
<tr>
<td>Partnerships with STEM-based industries, organizations and service providers</td>
<td>15</td>
</tr>
<tr>
<td>Program history and results</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**New Organizations and Programs**

- Please include a copy of your organization’s current organizational chart with your grant application

<table>
<thead>
<tr>
<th>Objective</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies to recruit, train and place new STEM teachers in grant-eligible locations or to enhance the ability of pre-service and in-service teachers to teach new or additional STEM-related coursework</td>
<td>40</td>
</tr>
<tr>
<td>Cost effectiveness of proposal including, but not limited to:</td>
<td></td>
</tr>
<tr>
<td>o New teachers to be supported</td>
<td>25</td>
</tr>
<tr>
<td>o Number of K-12 public schools to be supported</td>
<td></td>
</tr>
<tr>
<td>STEM teacher retention strategies</td>
<td>25</td>
</tr>
<tr>
<td>Current or proposed partnerships with STEM-based industries, organizations and service providers</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
APPENDICES
APPENDIX A
APPLICATION EVALUATION - Existing Organizations and Programs

Strategies to recruit, train and place new STEM teachers in grant-eligible locations or to enhance the ability of pre-service and in-service teachers to teach new or additional STEM-related coursework

   a. Outreach and recruiting activities for new teachers
   b. Training activities and teacher placement success
   c. Enhancement of pre-service and in-service teachers’ ability to teach new or continuing STEM-related subject matter

   Maximum Pages: 6   Maximum Points: 40

Cost effectiveness of proposal including, but not limited to:

   a. New teachers to be supported
   b. Number of K-12 public schools to be supported
   c. Fund usage as stated in budget worksheet; particular emphasis will be placed on percentage of funding going to staffing, travel and related costs as a percent of total fund usage

   Maximum Pages: 4   Maximum Points: 20

STEM teacher retention strategies

   a. Methods used to retain new STEM teachers and to support the growth of in-service teachers
   b. Quantitative data showing retention achieved thru the organization or program

   Maximum Pages: 4   Maximum Points: 15

Partnerships with STEM-based industries, organizations and service providers

   a. Relationships with entities supporting student and teacher achievement in STEM-related fields

   Maximum Pages: 4   Maximum Points: 15

Program history and results

   a. Total number of students and teachers serviced and outcomes

   Maximum Pages: 2   Maximum Points: 10

Total Pages: 20   Total Points: 100
Strategies to recruit, train and place new STEM teachers in grant-eligible locations or to enhance the ability of pre-service and in-service teachers to teach new or additional STEM-related coursework

a. Outreach and recruiting activities for new teachers
b. Training activities and teacher placement success
c. Enhancement of pre-service and in-service teachers’ ability to teach new or continuing STEM-related subject matter

Cost effectiveness of proposal including, but not limited to:

a. New, pre-service or in-service teachers supported
b. Number of K-12 public schools supported thru programs utilizing grant funds
   c. Fund usage as stated in budget worksheet; particular emphasis will be placed on percentage of funding going to staffing, travel and related costs as a percent of total fund usage

STEM teacher retention strategies

b. Relationships with entities supporting student and teacher achievement in STEM-related fields
   c. Methods used to retain new STEM teachers and to support the growth of in-service teachers
d. Quantitative data showing retention achieved thru the organization or program

Current or proposed partnerships with STEM-based industries, organizations and service providers

b. Relationships with entities supporting student and teacher achievement in STEM-related fields
APPENDIX B

Budget Worksheet

Please refer to the Excel Spreadsheet provided as part of the application packet
Public Law 205-2013 [HB 1001]

Science, Technology, Engineering, and Mathematics Teacher Recruitment Fund

Sec. 1. As used in this chapter, "fund" refers to the science, technology, engineering, and mathematics teacher recruitment fund established by section 3 of this chapter.

Sec. 3. The science, technology, engineering, and mathematics teacher recruitment fund is established. The commission for higher education shall administer the fund.

Sec. 4. The fund consists of:

1. appropriations made to the fund by the general assembly; and
2. grants, gifts, and donations intended for deposit in the fund.

Sec. 5. Expenses of administering the fund must be paid from money in the fund.

Sec. 6. The treasurer of state shall invest the money in the fund not currently needed to meet the obligations of the fund in the same manner as other public money may be invested. Interest that accrues from these investments must be deposited in the fund.

Sec. 7. Money in the fund at the end of a fiscal year does not revert to the state general fund.

Sec. 8. The commission for higher education may use money in the fund to provide grants to Indiana organizations that recruit science, technology, engineering, and mathematics teachers for employment by Indiana school corporations.

Sec. 9. The commission for higher education shall establish two (2) grant programs as follows:

1. A grant program to encourage the growth of existing organizations that recruit science, technology, engineering, and mathematics teachers.

2. A grant program to support the establishment of programs that increase the pool of high-quality science, technology, engineering, and mathematics teachers in Indiana.

Sec. 10. The commission for higher education shall develop an application process for grants under this chapter that identifies recruiting organizations and programs:

1. that produce high student achievement and effective and highly effective teachers; and
2. that match science, technology, engineering, and mathematics teachers with Indiana school corporations that would otherwise encounter a shortage of qualified teachers in science, technology, engineering, and mathematics.

Sec. 11. The commission for higher education shall develop standards for evaluating recipients of grants under this chapter.

Sec. 12. A recipient of a grant under this chapter shall submit to the commission for higher education a written report concerning the recipient's compliance with the evaluation standards.

---

4 2015 HEA 1001 dissolved Indiana Education Roundtable and assigned administration of grant fund to the Indiana Commission for Higher Education
developed under section 11 of this chapter on the following dates:

(1) December 1 of each year.

(2) July 1 of each year.

Sec. 13. The commission for higher education shall consider the information submitted under section 12 of this chapter when evaluating a subsequent application from a recruiting organization or program. An applicant may be denied a grant under this chapter based on the information submitted under section 12 of this chapter.
APPENDIX D
Quantitative Reasoning STEM Courses

Quantitative Reasoning STEM courses as determined for the Indiana STEM Teacher Recruitment Fund grant program.

<table>
<thead>
<tr>
<th>Quantitative Reasoning: Engineering</th>
<th>Non-PLTW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Integrated Manufacturing</td>
<td>PLTW(^5) 4810</td>
</tr>
<tr>
<td>Principles of Engineering</td>
<td>4814</td>
</tr>
<tr>
<td>Aerospace Engineering</td>
<td>4816</td>
</tr>
<tr>
<td>Civil Engineering and Architecture</td>
<td>4820</td>
</tr>
<tr>
<td>Digital Electronics</td>
<td>4826</td>
</tr>
<tr>
<td>Engineering Design and Development</td>
<td>4828</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quantitative Reasoning: Math</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculus</td>
<td>2527</td>
</tr>
<tr>
<td>Finite Mathematics</td>
<td>2530</td>
</tr>
<tr>
<td>Advanced Mathematics, Special Topics: Insert title descriptive of course content</td>
<td>2543</td>
</tr>
<tr>
<td>Advanced Mathematics, College Credit</td>
<td>2544</td>
</tr>
<tr>
<td>Probability and Statistics</td>
<td>2546</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>2550</td>
</tr>
<tr>
<td>Integrated Mathematics III</td>
<td>2558</td>
</tr>
<tr>
<td>Calculus AB, Advanced Placement</td>
<td>2562</td>
</tr>
<tr>
<td>Pre-Calculus – 1 Semester</td>
<td>2564</td>
</tr>
<tr>
<td>Trigonometry - 1 semester</td>
<td>2566</td>
</tr>
<tr>
<td>Advanced Modeling and Analysis</td>
<td>2568</td>
</tr>
<tr>
<td>Statistics, Advanced Placement</td>
<td>2570</td>
</tr>
<tr>
<td>Calculus BC, Advanced Placement</td>
<td>2572</td>
</tr>
<tr>
<td>Further Mathematics, Higher Level International Baccalaureate</td>
<td>2580</td>
</tr>
<tr>
<td>Mathematics Higher Level, International Baccalaureate</td>
<td>2582</td>
</tr>
<tr>
<td>Mathematics Standard Level, International Baccalaureate</td>
<td>2584</td>
</tr>
<tr>
<td>Mathematical Studies Standard Level, International Baccalaureate</td>
<td>2586</td>
</tr>
</tbody>
</table>

\(^5\) Project Lead the Way
APPENDIX E

Career and Technical Education STEM Courses

High School STEM Courses for the STEM Teacher Recruitment Fund Grant Program
Career and Technical Education Courses are underlined

<table>
<thead>
<tr>
<th>Course Number</th>
<th>High School Subject Area and Course Title</th>
</tr>
</thead>
</table>

**ADVANCED COURSES FOR DUAL CREDIT**

- 2544 Advanced Mathematics, College Credit
- 3090 Advanced Science, College Credit (L)

**ADVANCED PLACEMENT**

- 3020 Biology, Advanced Placement (L)
- 2562 Calculus AB, Advanced Placement
- 2572 Calculus BC, Advanced Placement
- 3060 Chemistry, Advanced Placement
- 4570 Computer Science A, Advanced Placement
- 3012 Environmental Science, Advanced Placement (L)
- 3080 Physics B, Advanced Placement (L)
- 3088 Physics C, Advanced Placement (L)
- 2570 Statistics, Advanced Placement

**AGRICULTURAL EDUCATION**

- 5070 Advanced Life Science, Animals (L)
- 5072 Advanced Life Science, Foods (L)
- 5074 Advanced Life Science, Plants and Soils (L)
- 5088 Agriculture Power, Structure, and Technology
- 5008 Animal Science
- 5102 Food Science
- 5132 Horticultural Science
- 5170 Plant and Soil Science
- 5180 Natural Resources
- 5229 Sustainable Energy Alternatives

**BUSINESS, MARKETING, & INFORMATION TECHNOLOGY**

- 4516 Computer Illustration and Graphics
- 4534 Computer Programming I
- 5236 Computer Programming II
- 4570 Computer Science A, Advanced Placement
- 4584 Computer Science Higher Level, International Baccalaureate
- 4586 Computer Science Standard Level, International Baccalaureate
### Information Technology in a Global Society Higher Level, International Baccalaureate  
**5242**

### CAREER & TECHNICAL EDUCATION  
**5238** Advanced Career & Technical Education, College Credit

### ENGINEERING & TECHNOLOGY EDUCATION  
**5608** Advanced Manufacturing I  
**5606** Advanced Manufacturing II  
**5518** Aerospace Engineering non-PLTW  
4816 Aerospace Engineering PLTW  
**5648** Biotechnical Engineering non-PLTW  
4818 Biotechnical Engineering PLTW  
**5650** Civil Engineering and Architecture non-PLTW  
4820 Civil Engineering and Architecture PLTW  
4780 Communication Systems  
**5534** Computer Integrated Manufacturing non-PLTW  
4810 Computer Integrated Manufacturing PLTW  
4800 Computers in Design & Production  
4822 Design Technology Higher Level, International Baccalaureate  
4824 Design Technology Standard Level, International Baccalaureate  
**5538** Digital Electronics non-PLTW  
4826 Digital Electronics PLTW  
**5698** Engineering Design and Development non-PLTW  
4828 Engineering Design and Development PLTW  
4796 Introduction to Advanced Manufacturing and Logistics  
4802 Introduction to Engineering Design non-PLTW  
4784 Introduction to Manufacturing  
**5644** Principles of Engineering non-PLTW  
4814 Principles of Engineering PLTW

### HEALTH SCIENCE EDUCATION  
**5276** Anatomy and Physiology  
**5284** Health Science Education II: Nursing formerly Health Science Education II  
**5214** Health Science Education II: Pharmacy formerly Introduction to Pharmacy
  Health Science Education II: Physical Therapy formerly Introduction to Physical Therapy  
**5215**  
**5216** PLTW Human Body Systems  
**5217** PLTW Medical Interventions  
**5218** PLTW Principles of Biomedical Sciences  
**5219** PLTW Biomedical Innovations
INTERNATIONAL BACCALAUREATE

Biology Higher Level,
3032 International Baccalaureate
Biology Standard Level,
3034 International Baccalaureate
Chemistry Higher Level,
3070 International Baccalaureate
Chemistry Standard Level, International Baccalaureate
3072 International Baccalaureate
Computer Science Higher Level, International Baccalaureate
4584 International Baccalaureate
Computer Science Standard Level, International Baccalaureate
4586 International Baccalaureate
Environmental Systems Standard Level, International Baccalaureate
3014 International Baccalaureate
Environmental Systems and Societies Standard Level, International
3016 International Baccalaureate
Baccalaureate
Information Technology in a Global Society Higher Level, International
5242 International Baccalaureate
Information Technology in a Global Society Standard Level, International
5246 International Baccalaureate
Baccalaureate
2582 Mathematics Higher Level, International Baccalaureate
2586 Mathematical Studies Standard Level, International Baccalaureate
2584 Mathematics Standard Level, International Baccalaureate
2586 International Baccalaureate
Mathematics Lab
2560 International Baccalaureate
Pre-Calculus/Trigonometry - 2 semesters
2564 International Baccalaureate

MATHEMATICS

2544 Advanced Mathematics, College Credit
2543 Advanced Mathematics, Special Topics: Insert title Descriptive of course content
2568 Advanced Modeling and Analysis
2516 Algebra I Lab
2520 Algebra I
2522 Algebra II
2527 Calculus
2562 Calculus AB, Advanced Placement
2572 Calculus BC, Advanced Placement
2530 Finite Mathematics
2580 Further Mathematics, Standard Level International Baccalaureate
2532 Geometry
2518 Integrated Mathematics I Lab
2554 Integrated Mathematics I
2556 Integrated Mathematics II
2558 Integrated Mathematics III
2586 Mathematical Studies Standard Level, International Baccalaureate
2582 Mathematics Higher Level, International Baccalaureate
2560 Mathematics Lab
2584 Mathematics Standard Level, International Baccalaureate
2564 Computer Science Higher Level, International Baccalaureate
4584 International Baccalaureate
Computer Science Standard Level, International Baccalaureate
4586 International Baccalaureate
Environmental Systems Standard Level, International Baccalaureate
3014 International Baccalaureate
Environmental Systems and Societies Standard Level, International
3016 International Baccalaureate
Baccalaureate
Information Technology in a Global Society Higher Level, International
5242 International Baccalaureate
Information Technology in a Global Society Standard Level, International
5246 International Baccalaureate
Baccalaureate
2582 Mathematics Higher Level, International Baccalaureate
2586 Mathematical Studies Standard Level, International Baccalaureate
2584 Mathematics Standard Level, International Baccalaureate
2586 International Baccalaureate
Mathematics Lab
2560 International Baccalaureate
Pre-Calculus/Trigonometry - 2 semesters
2564 International Baccalaureate

20
2546 Probability and Statistics
2550 Quantitative Reasoning
2570 Statistics, Advanced Placement
2566 Trigonometry - 1 semester

SCIENCE
3090 Advanced Science, College Credit (L)
3092 Advanced Science, Special Topics (L)
5276 Anatomy and Physiology
3024 Biology I (L)
3026 Biology II (L)
3020 Biology, Advanced Placement (L)
3032 Biology Higher Level, International Baccalaureate
3034 Biology Standard Level, International Baccalaureate
3064 Chemistry I (L)
3066 Chemistry II (L)
3060 Chemistry, Advanced Placement
3070 Chemistry Higher Level, International Baccalaureate
3072 Chemistry Standard Level, International Baccalaureate
3044 Earth and Space Science I (L)
3046 Earth and Space Science II (L)
3010 Environmental Science (L)
3012 Environmental Science, Advanced Placement (L)
3014 Environmental Systems Standard Level, International Baccalaureate
Environmental Systems and Societies Standard Level, International Baccalaureate
3016 Integrated Chemistry-Physics (L)
3084 Physics I (L)
3086 Physics II (L)
3080 Physics B, Advanced Placement (L)
3088 Physics C, Advanced Placement (L)
3096 Physics Higher Level, International Baccalaureate
3008 Science Research, Independent Study (L)
3094 Science Tutorial

TRADE AND INDUSTRIAL EDUCATION
5608 Advanced Manufacturing I
5606 Advanced Manufacturing II
4796 Introduction to Advanced Manufacturing and Logistics