

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

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I. <u>Timeline</u>

Monday, August 24, 2015 Application posted on

Indiana Commission for Higher Education website at

www.in.gov/che

Friday, October 9, 2015 Applications due at CHE by

5pm (EDT)

Monday, October 12, 2015 - Friday, October 23, 2015

Application review period

Wednesday, October 28, 2015

Grants awarded

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. <u>Background</u>

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 corporations¹ that are encountering shortages of qualified teachers.
 - Place new science, technology, engineering, and math teachers in schools located in underserved areas.

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¹ As described in IC 20-18-2-16

III. Objectives

To provide grants to Indiana non-profit organizations² 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 in an Indiana public school;
- 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.
- 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) grants³
- 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 wills 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:

- 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

Objective	Points
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	40
Cost effectiveness of proposal including, but not limited to:	
o New, pre-service or in-service teachers supported	
o Number of K-12 public schools supported thru programs	
utilizing grant funds	20
STEM teacher retention strategies	15
Partnerships with STEM-based industries, organizations	
and service providers	15
Program history and results	10
Total	100

New Organizations and Programs

• Please include a copy of your organization's current organizational chart with your grant application

Objective	Points
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	40
Cost effectiveness of proposal including, but not	
limited to:	
o New teachers to be supported	
o Number of K-12 public schools to be supported	25
STEM teacher retention strategies	25
Current or proposed partnerships with STEM-based	
industries, organizations and service providers	10
Total	100

APPENDICES

APPENDIX A

APPLICATION EVALUATION - Existing Organizations and Programs

			-service teachers in grant-e	
	d coursework			
a. b. c.	Outreach and recruiti Training activities and Enhancement of pre- related subject matte	l teacher place service and in-	ment success	ach new or continuing STEM-
	Maximum Pages:	6	Maximum Points:	40
<u>Cost e</u>	ffectiveness of propo	sal including,	but not limited to:	
a. b. c.	Fund usage as stated	c schools to be in budget worl		will be placed on percentage of total fund usage
STEM	Maximum Pages: teacher retention str	4	Maximum Points:	20
a. b.	Methods used to reta	in new STEM t	eachers and to support the $\mathfrak g$	growth of in-service teachers tion or program
	Maximum Pages:	4	Maximum Points:	15
<u>Partne</u>	erships with STEM-ba	sed industries	s, organizations and servic	e providers
a.	Relationships with en	tities supportir	ng student and teacher achie	evement in STEM-related fields
	Maximum Pages:	4	Maximum Points:	15
Progra	am history and results	<u>5</u>		
a.	Total number of stude	ents and teach	ers serviced and outcomes	
	Maximum Pages:	2	Maximum Points:	10
	Total Pages:	20	Total Points:	100

APPENDIX A

APPLICATION EVALUATION - New Organizations and Programs

Strategies to recruit, train and place new STEM teachers in grant-eligible locations or to

		rvice and in-se	rvice teachers to teach new o	r additional STEM-
related	d coursework			
a.	Outreach and recruiting	g activities for ne	ew teachers	
b.	Training activities and t	eacher placeme	nt success	
c.	Enhancement of pre-se	ervice and in-serv	vice teachers' ability to teach ne	w or continuing STEM-
	related subject matter			
	Maximum Pages:	6	Maximum Points:	40
Cost e	ffectiveness of propos	al including, bu	t not limited to:	
a.	New, pre-service or in-	service teachers	supported	
b.	•		ed thru programs utilizing grant	funds
c.	Fund usage as stated in	budget worksh	eet; particular emphasis will be p	placed on percentage o
	funding going to staffin	g, travel and rel	ated costs as a percent of total f	und usage
	Maximum Pages:	4	Maximum Points:	25
STEM:	teacher retention stra	<u>tegies</u>		
c.	Methods used to retain	new STFM tead	hers and to support the growth	of in-service teachers
d.			hieved thru the organization or	
		_	-	
	Maximum Pages:	4	Maximum Points:	25
Currer	nt or proposed partner	shins with STFI	M-based industries, organizat	ions and service
provid		SINDS WICH STEE	vi basea maastries, organizat	ions and service
b.	Relationships with enti-	ties supporting s	tudent and teacher achievemen	t in STEMI-related fields
	Maximum Pages:	4	Maximum Points:	10
	Total Pages:	18	Total Points:	100

APPENDIX B

Budget Worksheet

Please refer to the Excel Spreadsheet provided as part of the application packet

APPENDIX C

Statute Governing STEM Teacher Recruitment Grant Fund IC 20-27-14⁴

http://iga.in.gov/legislative/laws/2015/ic/titles/020/articles/027/chapters/014/

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.

Quantitative Reasoning: Engineering Computer Integrated Manufacturing Principles of Engineering Aerospace Engineering Civil Engineering and Architecture Digital Electronics Engineering Design and Development	PLTW ⁵ 4810 4814 4816 4820 4826 4828	Non- PLTW 5534 5644 5518 5650 5538 5698
Quantitative Reasoning: Math		
Calculus		2527
Finite Mathematics		2530
Advanced Mathematics, Special Topics: Insert title		
descriptive of course content		2543
Advanced Mathematics, College Credit		2544
Probability and Statistics		2546
Quantitative Reasoning		2550
Integrated Mathematics III		2558
Calculus AB, Advanced Placement		2562
Pre-Calculus – 1 Semester		2564
Trigonometry - 1 semester		2566
Advanced Modeling and Analysis		2568
Statistics, Advanced Placement		2570
Calculus BC, Advanced Placement		2572
Further Mathematics, Higher Level International		
Baccalaureate		2580
Mathematics Higher Level, International Baccalaureate		2582
Mathematics Standard Level, International		
Baccalaureate		2584
Mathematical Studies Standard Level, International		
Baccalaureate		2586

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 <u>underlined</u>

Co	ur	se

Number High School Subject Area and Course Title

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 Place

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

<u>5070</u>	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

5008Animal Science5102Food Science

5132Horticultural Science5170Plant and Soil Science5180Natural Resources

5229 Sustainable Energy Alternatives

BUSINESS, MARKETING, & INFORMATION TECHNOLOGY

<u>4516</u>	Computer illustration and Graphics
1E21	Computer Programming I

<u>Computer Programming I</u> <u>S236</u> <u>Computer Programming II</u>

<u>4570</u> <u>Computer Science A, Advanced Placement</u>

<u>4584</u> <u>Computer Science Higher Level, International Baccalaureate</u> <u>4586</u> <u>Computer Science Standard Level, International Baccalaureate</u>

<u>Information Technology in a Global Society Higher Level, International</u>

5242 <u>Baccalaureate</u>

CAREER & TECHNICAL EDUCATION

5238 Advanced Career & Technical Education, College Credit

ENGINEERING &	TECHNOLOGY EDUCATION
<u>5608</u>	Advanced Manufacturing I
<u>5606</u>	Advanced Manufacturing II
<u>5518</u>	Aerospace Engineering non-PLTW
<u>4816</u>	Aerospace Engineering PLTW
<u>5648</u>	Biotechnical Engineering non-PLTW
<u>4818</u>	Biotechnical Engineering PLTW
<u>5650</u>	Civil Engineering and Architecture non-PLTW
<u>4820</u>	<u>Civil Engineering and Architecture PLTW</u>
<u>4780</u>	<u>Communication Systems</u>
<u>5534</u>	Computer Integrated Manufacturing non-PLTW
<u>4810</u>	Computer Integrated Manufacturing PLTW
<u>4800</u>	Computers in Design & Production
4822	<u>Design Technology Higher Level, International Baccalaureate</u>
<u>4824</u>	<u>Design Technology Standard Level, International Baccalaureate</u>
<u>5538</u>	<u>Digital Electronics non-PLTW</u>
<u>4826</u>	<u>Digital Electronics PLTW</u>
<u>5698</u>	Engineering Design and Development non-PLTW
<u>4828</u>	Engineering Design and Development PLTW
<u>4796</u>	Introduction to Advanced Manufacturing and Logistics
4802	Introduction to Engineering Design non-PLTW
<u>4784</u>	Introduction to Manufacturing
<u>5644</u>	Principles of Engineering non-PLTW
<u>4814</u>	<u>Principles of Engineering PLTW</u>
HEALTH SCIENCE	
<u>5276</u>	Anatomy and Physiology
<u>5284</u>	Health Science Education II: Nursing formerly Health Science Education II
<u>5214</u>	Health Science Education II: Pharmacy formerly Introduction to Pharmacy
	<u>Health Science Education II: Physical Therapy formerly Introduction to Physical</u>
<u>5215</u>	<u>Therapy</u>
<u>5216</u>	PLTW Human Body Systems
<u>5217</u>	PLTW Medical Interventions
<u>5218</u>	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
3072	Chemistry Standard Level, International Baccalaureate
4584	Computer Science Higher Level, International Baccalaureate
4586	Computer Science Standard Level, International Baccalaureate
3014	Environmental Systems Standard Level, International Baccalaureate
	Environmental Systems and Societies Standard Level, International
3016	Baccalaureate
	Information Technology in a Global Society Higher Level, International
5242	Baccalaureate
	Information Technology in a Global Society Standard Level, International
5246	Baccalaureate
2582	Mathematics Higher Level, International Baccalaureate
2586	Mathematical Studies Standard Level, International Baccalaureate
2584	Mathematics Standard Level, International Baccalaureate
3096	Physics Higher Level, International Baccalaureate
3098	Physics Standard Level, International Baccalaureate
	, 5 5 5 5 5 5
MATHEMATICS	Advanced Mathematics College Credit
2544	Advanced Mathematics, College Credit
2544 2543	Advanced Mathematics, Special Topics: Insert title Descriptive of course content
2544 2543 2568	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis
2544 2543 2568 2516	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab
2544 2543 2568 2516 2520	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra I
2544 2543 2568 2516 2520 2522	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra I Algebra II
2544 2543 2568 2516 2520 2522 2527	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra I Algebra II Calculus
2544 2543 2568 2516 2520 2522 2527 2562	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra I Algebra II Calculus Calculus AB, Advanced Placement
2544 2543 2568 2516 2520 2522 2527 2562 2572	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra I Algebra II Calculus Calculus AB, Advanced Placement Calculus BC, Advanced Placement
2544 2543 2568 2516 2520 2522 2527 2562 2572 2530	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra I Algebra II Calculus Calculus AB, Advanced Placement Calculus BC, Advanced Placement Finite Mathematics
2544 2543 2568 2516 2520 2522 2527 2562 2572 2530 2580	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra I Algebra II Calculus Calculus AB, Advanced Placement Calculus BC, Advanced Placement Finite Mathematics Further Mathematics, Standard Level International Baccalaureate
2544 2543 2568 2516 2520 2522 2527 2562 2572 2530 2580 2532	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra I Algebra II Calculus Calculus Calculus AB, Advanced Placement Calculus BC, Advanced Placement Finite Mathematics Further Mathematics, Standard Level International Baccalaureate Geometry
2544 2543 2568 2516 2520 2522 2527 2562 2572 2530 2580 2532 2518	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra II Calculus Calculus AB, Advanced Placement Calculus BC, Advanced Placement Finite Mathematics Further Mathematics, Standard Level International Baccalaureate Geometry Integrated Mathematics I Lab
2544 2543 2568 2516 2520 2522 2527 2562 2572 2530 2580 2532 2518 2554	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra I Algebra II Calculus Calculus AB, Advanced Placement Calculus BC, Advanced Placement Finite Mathematics Further Mathematics, Standard Level International Baccalaureate Geometry Integrated Mathematics I Lab Integrated Mathematics I
2544 2543 2568 2516 2520 2522 2527 2562 2572 2530 2580 2532 2518 2554 2556	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra II Calculus Calculus Calculus AB, Advanced Placement Calculus BC, Advanced Placement Finite Mathematics Further Mathematics, Standard Level International Baccalaureate Geometry Integrated Mathematics I Lab Integrated Mathematics II
2544 2543 2568 2516 2520 2522 2527 2562 2572 2530 2580 2532 2518 2554	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra II Calculus Calculus AB, Advanced Placement Calculus BC, Advanced Placement Finite Mathematics Further Mathematics, Standard Level International Baccalaureate Geometry Integrated Mathematics I Lab Integrated Mathematics II Integrated Mathematics III
2544 2543 2568 2516 2520 2522 2527 2562 2572 2530 2580 2532 2518 2554 2556	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra I Algebra II Calculus Calculus AB, Advanced Placement Calculus BC, Advanced Placement Finite Mathematics Further Mathematics, Standard Level International Baccalaureate Geometry Integrated Mathematics I Integrated Mathematics II Integrated Mathematics III Mathematical Studies Standard Level, International Baccalaureate
2544 2543 2568 2516 2520 2522 2527 2562 2572 2530 2580 2532 2518 2554 2556 2558	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra II Calculus Calculus AB, Advanced Placement Calculus BC, Advanced Placement Finite Mathematics Further Mathematics, Standard Level International Baccalaureate Geometry Integrated Mathematics I Lab Integrated Mathematics II Integrated Mathematics III
2544 2543 2568 2516 2520 2522 2527 2562 2572 2530 2580 2532 2518 2554 2556 2558 2586	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra I Algebra II Calculus Calculus AB, Advanced Placement Calculus BC, Advanced Placement Finite Mathematics Further Mathematics, Standard Level International Baccalaureate Geometry Integrated Mathematics I Integrated Mathematics II Integrated Mathematics III Mathematical Studies Standard Level, International Baccalaureate
2544 2543 2568 2516 2520 2522 2527 2562 2572 2530 2580 2532 2518 2554 2556 2558 2586 2582	Advanced Mathematics, Special Topics: Insert title Descriptive of course content Advanced Modeling and Analysis Algebra I Lab Algebra I Algebra II Calculus Calculus AB, Advanced Placement Calculus BC, Advanced Placement Finite Mathematics Further Mathematics, Standard Level International Baccalaureate Geometry Integrated Mathematics I Integrated Mathematics II Integrated Mathematics III Mathematical Studies Standard Level, International Baccalaureate Mathematics Higher Level, International Baccalaureate

Pre-Calculus/Trigonometry - 2 semesters

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
3016	Baccalaureate
3108	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	
<u>5608</u>	Advanced Manufacturing I
5606	Advanced Manufacturing II

<u>5606</u> Advanced Manufacturing II

<u>4796</u> <u>Introduction to Advanced Manufacturing and Logistics</u>