

Course Description Guide

Includes complete descriptions

Rochester High School
Class of 2019

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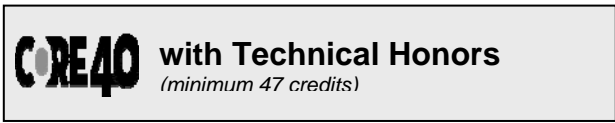
STUDENT INFORMATION



Course and Credit Requirements	
English/ Language Arts	8 credits
	Including a balance of literature, n composition and speech.
Mathematics	6 credits (in grades 9-12)
	2 credits: Algebra I 2 credits: Geometry 2 credits: Algebra II <small>Or complete Integrated Math I, II, and III for 6 credits. Students must take a math or quantitative reasoning course each year in high school</small>
Science	6 credits
	2 credits: Biology I 2 credits: Chemistry I or Physics I or Integrated Chemistry-Physics 2 credits: any Core 40 science course
Social Studies	6 credits
	2 credits: U.S. History 1 credit: U.S. Government 1 credit: Economics 2 credits: World History/Civilization or Geography/History of the World
Directed Electives	5 credits
	World Languages Fine Arts Career and Technical Education
Physical Education	2 credits
Health and Wellness	1 credit
Electives*	6 credits <small>(College and Career Pathway courses recommended)</small>
40 Total State Credits Required	

For the Core 40 with Academic Honors diploma, students must:

- Complete all requirements for Core 40.
- Earn 2 additional Core 40 math credits.
- Earn 6-8 Core 40 world language credits (6 credits in one language or 4 credits each in two languages).
- Earn 2 Core 40 fine arts credits.
- Earn a grade of a "C" or better in courses that will count toward the diploma.
- Have a grade point average of a "B" or better.
- Complete one of the following:
 - A. Earn 4 credits in 2 or more AP courses and take corresponding AP exams
 - B. Earn 6 verifiable transcribed college credits in dual credit courses from priority course list
 - C. Earn two of the following:
 1. A minimum of 3 verifiable transcribed college credits from the priority course list,
 2. 2 credits in AP courses and corresponding AP exams,
 3. 2 credits in IB standard level courses and corresponding IB exams.
 - D. Earn a combined score of 1750 or higher on the SAT critical reading, mathematics and writing sections and a minimum score of 530 on each
 - E. Earn an ACT composite score of 26 or higher and complete written section
 - F. Earn 4 credits in IB courses and take corresponding IB exams.



For the Core 40 with Technical Honors diploma, students must:

- Complete all requirements for Core 40.
- Earn 6 credits in the college and career preparation courses in a state-approved College & Career Pathway and one of the following:
 1. Pathway designated industry-based certification or credential, or
 2. Pathway dual credits from the lists of priority courses resulting in 6 transcribed college credits
- Earn a grade of "C" or better in courses that will count toward the diploma.
- Have a grade point average of a "B" or better.
- Complete one of the following,
 - A. Any one of the options (A - F) of the Core 40 with Academic Honors
 - B. Earn the following scores or higher on WorkKeys: Reading for Information – Level 6, Applied Mathematics – Level 6, and Locating Information-Level 5.
 - C. Earn the following minimum score(s) on Accuplacer: Writing 80, Reading 90, Math 75.
 - D. Earn the following minimum score(s) on Compass: Algebra 66, Writing 70, Reading 80.

Schools may have additional local graduation requirements that apply to all students

* Specifies the number of electives required by the state. High school schedules provide time for many more electives during the high school years. All students are strongly encouraged to complete a College and Career Pathway (selecting electives in a deliberate manner) to take full advantage of career and college exploration and preparation opportunities.

10 ISTEP+ TESTING

The Indiana Department of Education has announced that beginning in the spring of 2016 all Indiana students will be given a test at the end of their tenth grade year covering English and mathematics. More details will be forthcoming.

MATH SEQUENCE

Students entering high school have very different needs regarding math. We have created alternative placement to give each student the best chance to succeed in high school. Counselors will discuss these options with students and parents.

Paths:

- Pass Algebra with “C” or higher in 8th grade: Geometry in 9th grade, Algebra 2 in 10th grade
- Pass Pre-Algebra in 8th grade: Algebra 1 in 9th grade
- Struggle with Pre-Algebra in 8th grade: Algebra 1 in 9th grade with placement in Algebra Enrichment

LANGUAGE ARTS SEQUENCE

Students entering high school have different needs in regards to Language Arts as well. We want to ensure success in the high school. Counselors will discuss alternative placements with parents and students based on Middle School performance, testing and recommendations.

Paths:

- Pass 8th grade Language Arts at 8th grade reading level: Global Perspectives 9th grade, Digital Communications 10th grade
- Struggle in 8th grade Language Arts or read below grade level: Read 180 9th grade, Read 180 or Digital Communications 10th grade

SCIENCE SEQUENCE

Students entering high school have different needs in regards to Science. We have created alternative placements to give each student the best chance to succeed in high school. Counselors will discuss these options with students and parents.

Paths:

- Good skills in both Language Arts and Math: Biology 1 9th grade, Core 40 Science 10th grade
- Struggle with Language Arts and/or Math: Earth and Space Science 9th grade, Biology 1 10th grade

PASSING COURSES

It is very important for our students to remain on track for graduation. We have many exciting opportunities, current and future, for our students that we want them to pursue. If students do not pass the required courses for graduation, they will have to retake the course(s) in order to graduate. This may limit elective opportunities as upperclassmen.

POSTSECONDARY ENROLLMENT PROGRAM

Credit earned at any *accredited* public or private college or university *located in Indiana* that grants a baccalaureate or associate degree may count at RHS. Generally any student in *grade 11* or *grade 12* may enroll either full-time or part-time in a college or university program and earn credits toward graduation from high school as well as credits in the college program if 1) progress toward graduation is not delayed, 2) the school could not offer the course, and 3) the course is one for which credit can be given. Local decisions can be appealed. A student below grade 11 may also qualify, if the governing body of the School Corporation has established a supplemental postsecondary program in accordance with 511 IAC 6-10-4. The courses are determined by the local governing body of each school corporation. Generally, one high school credit will be given for an approved 3-hour college class. *Students should not enroll in a college or university class for high school credit until authorized to do so by RHS. Students must request the class credit one semester in advance of taking the class. Contact the guidance office for more information.*

Students who qualify for the Free and Reduced Lunch Program may also qualify for free tuition for dual-credit classes. Some fees may apply.

MAKING GOOD DECISIONS ABOUT COURSE SELECTIONS

Before completing the Planning Sheet at the end of this booklet, students and parents need to consider future plans.

Juniors with plans of attending college or trade schools should plan on retaking the PSAT since National Merit Scholarships are achieved by high PSAT scores from junior year testing. The SAT or ACT should be taken at least once (end of junior year) or twice (again during the senior year) to establish scores satisfactory for college admissions and financial aid. Colleges use SAT and ACT scores and their component scores (verbal or math) to determine the student's probable success. To raise SAT and ACT scores, students should plan on taking four years of English and four years of mathematics. Two to four years of foreign language is also helpful in achieving higher verbal scores. A student well prepared in academics, with high class rank, and good SAT and/or ACT scores will probably be admitted to most colleges and may receive some financial help.

Rank in class is computed upon the numerical grade point averages figured on semester grades. For example, the student with the highest accumulative grade point average will be ranked number 1 in the class. The semester grades of all courses are included except Driver Education and pass/fail classes. When computing GPA's (grade point averages), most colleges specify that students must rank in the upper one-half, one-fourth, or one-tenth of the class for admission and/or scholarships. This and other important college information, as well as career-related information, will be available to all high school students through the Guidance Center.

G.P.A. and class rank are important for college admission but parents and students should know that colleges are changing their admission standards and are asking two questions. (1) Did the student take challenging classes or did the student take easy classes to create a high G.P.A.? (2) Did the student take the senior year "off" by not taking the courses that would best prepare a student for college? For the spring of 2008, some Rochester students with a high G.P.A. and

high class rank were denied admission on the main campus of Purdue and IU. College admissions have become so competitive that students must meet all admission requirements by taking challenging classes for all four years of high school. Ball State, Indiana University and Purdue are all beginning to require at least two years of foreign language for admission to their freshman classes.

16 Indiana Career Clusters

Career Clusters provide a way for schools to organize instruction and student experiences around sixteen broad categories that encompass virtually all occupations from entry through professional levels. The sixteen clusters are:

Agriculture, Food & Natural Resources
Architecture & Construction
Arts, A/V Technology & Communications
Business, Management & Administration
Education & Training
Finance
Government & Public Administration
Health Science
Hospitality & Tourism
Human Services
Information Technology
Law, Public Safety, Corrections & Security
Manufacturing
Marketing, Sales & Service
Science, Technology, engineering & Mathematics
Transportation, Distribution, & Logistics

AGRICULTURE

The following course is offered for study within the agricultural education department at Rochester High School.

<u>DOE Code</u>	<u>Course Title</u>	<u>Recommended Grade Level</u>	<u>Credit</u>
5056	Intro to Agriculture Food and Natural Resources	9 - 12	2

Intro to Agriculture Food and Natural Resources - This is a yearlong course that is highly recommended as a prerequisite and foundation for all other agriculture classes. The nature of this course is to provide students with an introduction to the fundamentals of agricultural science and business. Topics to be covered include: animal science, plant and soil science, food science, horticultural science, farm and agribusiness management, landscape management, natural resources management, agricultural mechanization and supervised agricultural experience.

Prerequisites: None

2 semesters, 2 credits

FAMILY AND CONSUMER SCIENCE

All courses are open to both boys and girls and are one semester in length allowing the student to earn one credit per semester.

<u>DOE Code</u>	<u>Course Title</u>	<u>Recommended Grade Level</u>	<u>Credit</u>	<u>Option</u>
5342	Nutrition & Wellness (2016-17)	9-12	1	E
5340	Adv. Nutrition & Wellness (2015-16)	9-12	1	E
5362	Child Development & Parenting 1 (2016-17)	9-12	1	E
5360	Adv. Child Development & Parenting (2015-16)	9-12	1	E
5362	Interpersonal Relationships	9-12	1	E
5380	Fashion and Textile Foundations	9-12	1	E

COURSE DESCRIPTIONS

Child Development and Parenting -- This course will focus on the changing needs of children and how we as caregivers can support and promote optimal growth and development in children. Topics include pre-natal growth, physical, emotional, social and intellectual development of the young child. As a part of this course students will participate in a simulation of infant care. Students **WILL** be responsible for the care of “Baby Think It Over”. The length of time each student has the baby will be determined by the class. Students will deal with financial and physical needs of the infant as part of the simulation. **THOSE WISHING NOT TO PARTICIPATE IN THIS SIMULATION SHOULD NOT TAKE THIS COURSE.**

Prerequisites: Grades 9-12

1 semester, 1 credit

Advanced Child Development and Parenting -- Advanced Child Development is a sequential course that addresses more complex issues of child development and early childhood education with emphasis on guiding physical, social, emotional, intellectual, and moral development throughout childhood, including school age children. Topics may include positive parenting, developmentally appropriate guidance, brain/learning research and learning activities.

Prerequisites: Child Development and Parenting,
with a “B” average, Grades 10-12

1 semester, 1 credit

Interpersonal Relationships -- Interpersonal Relationships addresses the skill, attitudes and behaviors that people will need to develop caring and respectful relationships within the family, community, school and the workplace. Topics, which may be addressed, include components of healthy relationships, roles and responsibilities, and functions and expectations of various relationships. Emphasis will be stressed in the areas of communication, teamwork, goal setting, decision-making, stress management and the negative impact of dating violence and abuse.

Prerequisites: Grades 9-12

1 semester, 1 credit

Fashion and Textiles Foundations – Fashion and Textiles Foundations addresses the knowledge and skills related to design, production, acquisition and distribution in the textiles and fashion

arenas. Topics include: textile principles and applications; social, psychological, cultural and environmental aspect of clothing and textiles selection; clothing and textile products for people with special needs; critical thinking applied to consumer options for fashion, textiles and related equipment and tools. Students will develop skill in care and maintenance of textile products, equipment and tools. Students and instructor will determine projects to be made and completed for this course. **Students will be required to provide a shoebox size container for their supplies.**

Prerequisites: Grades 9-12

1 semester, 1 credit

Nutrition and Wellness -- This course will focus on the impact of daily nutrition and wellness practices on long-term health and wellness. The physical, social and psychological aspects of healthy nutrition and wellness choices will be explored. Other areas of study include: wellness and fitness; selection and preparation of nutritious meals and snacks based on USDA Dietary Guidelines including the Food Guide Pyramid; safety, sanitation and food storage issues. Laboratory experiences which emphasize both nutrition and wellness practices are required components of this course. **THIS COURSE WILL BE LIMITED TO 18 STUDENTS.**

Prerequisites: Grade 9-12

1 semester, 1 credit

Advanced Nutrition and Wellness -- Advanced Nutrition and Foods is a sequential course that addresses more complex concepts in nutrition and foods. Topics include: nutrition and wellness for individuals and families across the life span; community and world food concerns: impacts of technology on nutrition, foods and related tools and equipment; management of food-related resources. Laboratory experiences, which emphasize advanced applications, are required. **THIS COURSE WILL BE LIMITED TO 18 STUDENTS.**

Prerequisites

1 semester, 1 credit

FINE ARTS

<u>DOE Code</u>	<u>Course Title</u>	<u>Recommended</u>	
		<u>Grade Level</u>	<u>Credit</u>
4000	Intro to Two-Dimensional Art (L) <i>spring semester</i>	9-12	1
4160	Beginning Concert Band [L]	9-12	1
4182	Beginning Chorus [L]	9	1
4206	Music History and Appreciation	9-12	1
4242	Theater Arts <i>fall semester</i>	9-12	1

Intro to Two-Dimensional Art (L) – This is a Core 40 and AHD course which presents sequential learning experiences that encompass art history, art criticism, aesthetics, and production and lead to the creation of portfolio quality works. In the area of:

- Art History: students search for meaning, significance, and direction in two-dimensional works of art and artifacts through in-depth historical study and analysis of artwork from a variety of cultures and time periods;
- Art Criticism: students search for meaning, significance, and direction in two-dimensional works of art by: (1) critically examining current works and artistic trends, (2) exploring the role of the art critic in society, and (3) exploring art criticism as a method of identifying strengths and limitations in student artwork;
- Aesthetics: students search for meaning, significance, and direction in two-dimensional works of art and artifacts by: (1) attempting to respond to their personal questions about the nature of art, (2) reflecting on their own changing definitions of art, and (3) assessing their ideas and definitions in relation to the art community in general; and
- Production: students search for meaning, significance, and direction in their own work by producing works of art in a variety of two-dimensional media. At this level, students produce works for their portfolios that demonstrate a sincere desire to explore a variety of ideas and problems.

Additionally, students: (1) create works of art, (2) reflect upon the outcomes of those experiences, (3) explore historical connections, (4) write about the process, (5) make presentations about their progress at regular intervals, (6) work individually and in groups, (7) find direct correlation to other disciplines, and (8) explore career options in visual art. Students also identify ways to utilize and support art museums, galleries, studios, and community resources.

1 semester, 1 credit

Beginning Concert Band (L) –Students taking the course are provided with a balanced comprehensive study of music through the concert band, which develops skills in the psychomotor, cognitive, and affective domains. Instruction is designed to enable students to connect, examine, imagine, define, try, extend, refine, and integrate music study into other subject areas. Ensemble and solo activities are designed to develop elements of musicianship including, but not limited to: (1) tone production, (2) technical skills, (3) intonation, (4) music reading skills, (5) listening skills, (6) analyzing music, and (7) studying historically significant styles of literature. Experiences include, but are not limited to, improvising, conducting, playing by ear, and sight-reading. Students are given opportunities to develop the ability to understand and convey the composer’s intent in order to connect the performer with the audience.

In the fall the band performs and cheers at Rochester home football games. In the winter the band performs pep music for home basketball games. Concert band selections are also

Academic Honors and Core 40 with Technical Honors diplomas.

Prerequisites: None

1 semester, 1 credit

Theatre Arts I (L) is based on the Indiana Academic Standards for Theatre. Students enrolled in Theatre Arts read and analyze plays, create scripts and theatre pieces, conceive scenic designs, and develop acting skills. These activities incorporate elements of theatre history, culture, analysis, response, creative process, and integrated studies. Additionally, students explore career opportunities in the theatre, attend and critique theatrical productions, and recognize the responsibilities and the importance of individual theatre patrons in their community. (Fine Arts credit)

Prerequisites: None

1 semester, 1 credit

FOREIGN LANGUAGE

The state standards for foreign language learning are organized within the five goal areas proposed by the National Foreign Language Standards (*the Five C's*): *Communication, Cultures, Connections, Comparisons, and Communities*. These eleven standards are general and apply to all four levels of foreign language instruction. A complete listing of state standards is available at <http://www.doe.state.in.us>.

Evidence has been presented that a strong foreign language background (three-four years) does assist in higher SAT scores. A minimum of two years of foreign language study is usually required for students taking college preparatory courses; however, three or four years of foreign language study would be more beneficial. Also, foreign language is one of the requirements to receive an Academic Honors Diploma.

The student who wishes to enroll in a beginning foreign language course must have at least a “C” average in English class and have passed the language arts portion of 8th grade ISTEP. A student should maintain at least a “C” average to advance to subsequent levels. Good attendance, completion of daily homework, class participation, and consistent effort to memorize vocabulary are essential for success in foreign language study.

<u>DOE Code</u>	<u>Course Title</u>	<u>Recommended Grade Level</u>	<u>Credit</u>	<u>Option</u>
2000	*Chinese I	9-12	2	E
2002	*Chinese II	9-12	2	E
2120	*Spanish I	9-12	2	E
2122	*Spanish II	9-12	2	E

*Students who are enrolled in Spanish or who have previously studied Spanish are eligible to join Spanish Club. Students who are enrolled in Chinese or who have previously studied Chinese are eligible to join Chinese Club.

COURSE DESCRIPTIONS

Chinese I - This course introduces students to effective strategies for beginning Chinese language learning, and to various aspects of Chinese-speaking culture. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to basic requests and questions, understand and use appropriate greetings and forms of address, participate in brief guided conversations on familiar topics, and write simple sentences using characters. This course also emphasizes the development of reading and listening comprehension skills, such as recognizing letters and sounds of familiar words and comprehending brief oral directions. Additionally, students will examine the practices, products and perspectives of Chinese-speaking culture; recognize basic routine practices of the target culture; and recognize and use situation-appropriate, non-verbal communication. This course further emphasizes making connections across content areas and the application of understanding Chinese language and culture outside of the classroom.

Prerequisite: “C” or better in 8th grade Language Arts and passed 8th grade ISTEP Language Arts portion 2 semesters, 2 credits

Chinese II - This course is based on *Indiana’s Academic Standards for World Languages*, builds upon effective strategies for Chinese language learning by encouraging the use of the language

and cultural understanding for self-directed purposes. This course encourages interpersonal communication through speaking and writing, providing opportunities to make and respond to requests and questions in expanded contexts, participate independently in brief conversations on familiar topics, and write sentences and descriptions using characters. This course also emphasizes the development of reading and listening comprehension skills, such as using contextual clues to guess meaning and recognizing words and characters through stroke order and stroke count. Students will address the presentational mode by presenting prepared material on a variety of topics, as well as reading aloud to practice appropriate pronunciation. Additionally, students will describe the practices, products and perspectives of Chinese-speaking culture; report on basic family and social practices of the target culture; and describe contributions from the target culture. This course further emphasizes making connections across content areas and the application of understanding Chinese language and culture outside of the classroom.

Prerequisite: Chinese I “C” average or better

2 semesters, 2 credits

Spanish I – This course provides instruction enabling students to discuss the many reasons for learning languages and to develop an understanding of the people who speak them. Students are able to apply effective strategies for language learning and show a willingness to experience various aspects of the cultures. Within this context, the course provides students with opportunities to:

- respond to and give oral directions and commands and to make routine requests in the classroom and in public places;
- understand and use appropriate forms of address in courtesy expressions and be able to tell about daily routines and events;
- ask and answer simple questions and participate in brief guided conversations related to their needs and interests;
- read isolated words and phrases in a situational context, such as menus, signs, and schedules;
- comprehend brief written directions and information;
- read short narrative texts on simple topics; and
- write familiar words and phrases in appropriate contexts and respond in writing to various stimuli.

Additionally, students learn:

- about non-verbal communication, such as gestures and body language;
- about awareness of current events in the cultures;
- the major holidays and geographical features of the countries being studied;
- greeting and leave taking behaviors in a variety of social situations;
- the appropriate way to respond to introductions and use courtesy behaviors; and
- appropriate etiquette in a variety of social settings.

Prerequisite: “C” or better in 8th grade Language Arts and passed 8th grade ISTEP Language Arts portion

2 semesters, 2 credits

Spanish II – This is a Core 40 and AHD course which enables students to participate in classroom and extracurricular activities related to the language studied as well as to participate in conversations dealing with daily activities and personal interests. Students are able to:

- ask questions regarding routine activities;
- participate in conversations on a variety of topics;
- relate a simple narrative about a personal experience or event;

- interact in a variety of situations to meet personal needs, such as asking permission, asking for or responding to an offer of help, and expressing preferences pertaining to everyday life;
- understand main ideas and facts from simple texts over familiar topics;
- read aloud with appropriate intonation and pronunciation; and
- write briefly in response to given situations, for example postcards, personal notes, phone messages, and directions, as well as write letters using culturally appropriate format and style.

Additionally, students become:

- familiar with major geographical features, historical events, and political structures of the country(ies) being studied;
- familiar with different aspects of the culture, including the visual arts, architecture, literature and music, using the foreign language where appropriate;
- able to extend and respond to hospitality as a host or a guest; and
- aware of time expectations, such as arriving for appointments and social engagements.

Prerequisites: Spanish I with "C" average or above

2 semesters, 2 credits

GLOBAL PERSPECTIVES

<u>DOE Code</u>	<u>Course Title</u>	<u>Recommended Grade Level</u>	<u>Credit</u>
1002	English 9	9	2
1570	Geography and History of the World	9-10	2

Students are required to take four years of English. The department recommends that a student not enroll in more than two levels of English 9, 10, 11, or 12 during a semester. A third-year student may not advance into English 11 until receiving credit for both semesters of English 9. All students must earn 8 credits in English 9, 10, 11, and 12.

COURSE DESCRIPTIONS

English 9 (2 semesters required) – This course is integrated with World Geography and taught as a two-hour block.

1 credit per semester

Geography and History of the World -- Geography is presented as the story of people and how they live in different parts of the world. Geography will be presented as a social science to make it meaningful and a vital part of the social studies program.

With the modern world industrializing, people of different geographic backgrounds are being thrown together. It seems essential that we know and appreciate each other's space on the globe and recognize each other's contributions. This course is integrated with English 9 and taught as a two-hour block.

1 credit per semester

HEALTH AND PHYSICAL EDUCATION

<u>DOE Code</u>	<u>Course Title</u>	<u>Recommended Grade Level</u>	<u>Credit</u>
3506	Health Education	9-10	1
3542-44	Physical Education I & II (L)	9-10	2

COURSE DESCRIPTIONS

Health Education – High school health education provides the basis for continued methods of developing knowledge, concepts, skills, behaviors, and attitudes related to student health and well-being. This course includes the major content areas in a planned, sequential, comprehensive health education curriculum as expressed in the Indiana Health Education Proficiency Guide: (1) Growth and Development; (2) Mental and Emotional Health; (3) Community and Environmental Health; (4) Nutrition; (5) Family Life Education; (6) Consumer Health; (7) Personal Health; (8) Alcohol, Tobacco, and Other Drugs Education; (9) Intentional and Unintentional Injury; and (10) Health Promotion and Disease Prevention.

Students are provided with opportunities to explore the effect of health behaviors on an individual’s quality of life. This course assists students in understanding that health is a lifetime commitment by analyzing individual risk factors and health decisions that promote health and prevent disease. Students are also encouraged to assume individual responsibility for becoming competent health consumers. A variety of instructional strategies, including technology, are used to further develop health literacy. **This course is required to meet state graduation requirements for ALL diploma types.**

Prerequisites: None

1 semester, 1 credit

Physical Education I & II (L) – Physical Education I continues the emphasis on health-related fitness and developing the skills and habits necessary for a lifetime of activity. Physical Education II emphasizes a personal commitment to lifetime activity and fitness for enjoyment, challenge, self-expression, and social interaction. This course provides students with opportunities to achieve and maintain a health-enhancing level of physical fitness and increase their knowledge of fitness concepts. The course will also include a discussion of related careers. The programs include skill development and the application of rules and strategies of complex difficulty in at least three of the following different movement forms: (1) health-related fitness activities (cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition), (2) aerobic exercise, (3) team sports, (4) individual and dual sports, (5) gymnastics, (6) outdoor pursuits, (7) self-defense, (8) aquatics, (9) dance, and (10) recreational games. Ongoing assessment includes both written and performance-based skill evaluations. This course is required to meet state graduation requirements, Academic Honors diploma, and Core 40 requirements. Classes are co-educational unless the activity involves bodily contact or groupings are based on an objective standard of individual performance developed and applied without regard to gender. Adapted physical education must be offered, as needed, in the least restricted environment and must be based on individual assessment. **(Extra fees will be charged for classes such as bowling and aerobics, but they will not appear on the fee slip.)**

Prerequisites: None

2 semesters, 2 credits

MATHEMATICS

<u>DOE Code</u>	<u>Course Title</u>	<u>Recommended Grade Level</u>	<u>Credit</u>
2516	Algebra Enrichment	9	2
2520	Algebra I	9-10	2
2532	Geometry	9-10	2

COURSE DESCRIPTIONS

Algebra Enrichment is a mathematics support course for *Algebra I*. The course provides students with additional time to build the foundations necessary for high school math courses, while concurrently having access to rigorous, grade-level appropriate courses. The five critical areas of *Algebra Enrichment* align with the critical areas of *Algebra I*: Relationships between Quantities and Reasoning with Equations; Linear and Exponential Relationships; Descriptive Statistics; Expressions and Equations; and Quadratic Functions and Modeling. However, whereas *Algebra I* contains exclusively grade-level content, *Algebra Enrichment* combines standards from high school courses with foundational standards from the middle grades. Algebra Enrichment is designed as a support course for Algebra I. As such, a student taking Algebra Enrichment must also be enrolled in Algebra I during the same academic year. This class counts as a mathematics course for the General Diploma only or as an elective for the Core 40 and Honors diplomas.

2 semesters, 2 credits

Algebra I - This class provides a formal development of the algebraic skills and concepts necessary for students to succeed in advanced courses. In particular, the instructional program in this course provides for the use of algebraic skills in a wide range of problem-solving situations. The concept of function is emphasized throughout the course. Topics include: (1) operations with real numbers, (2) linear equations and inequalities, (3) relations and functions, (4) polynomials, (5) algebraic fractions, and (6) nonlinear equations.

A Core 40, THD and AHD course with standards defined

2 semesters, 2 credits

Geometry - This course is available to all students who have satisfactorily completed Algebra I. Knowledge of geometric figures and their properties is a primary goal of geometry. Emphasis shall be placed on using this knowledge to develop skills in analysis and problem solving. The use of deductive and inductive reasoning shall be a major concept studied, and the course will include formal proofs. Spatial visualization in both two and three dimensions is a necessary skill and experiences are provided to improve this ability.

Prerequisites: Algebra I

2 semesters, 2 credits

RESPONSE TO INSTRUCTION

<u>DOE Code</u>	<u>Course Title</u>	<u>Recommended Grade Level</u>	<u>Credit</u>
1010	Language Arts Lab	9-12	2
1120	Read 180 (Developmental Reading)	9-12	2

COURSE DESCRIPTIONS

Language Arts Lab is a supplemental course that provides students with individualized or small group instruction designed to support success in completing language arts course work aligned with *Indiana's Academic Standards for English/Language Arts* in Grades 9-12 and the *Common Core State Standards for English/Language Arts*, focusing on the Writing Standards.

- Counts as an English/Language Arts Elective only for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- This course is for students who need additional support in all the language arts (reading, writing, speaking and listening), especially in writing.

Read 180 (Developmental Reading) is a supplemental course that provides students with individualized instruction designed to support success in completing language arts course work aligned with *Indiana's Academic Standards for English/Language Arts* in Grades 9-12 and the *Common Core State Standards for English/Language Arts*, focusing on the Reading .

- Counts as an Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- This course is for students who need additional support in vocabulary development and reading comprehension.

1 semester, 2 credits

SCIENCE

<u>DOE Code</u>	<u>Course Title</u>	<u>Recommended Grade Level</u>	<u>Credit</u>
3024	Biology I (L)	9-12	2
3044	Earth and Space Science (L)	9-12	2
5218	Principles of the Biomedical Sciences	9-12	2

COURSE DESCRIPTIONS

Biology I (L) – Biology I provides, through regular laboratory and field investigations, a study of the structures and functions of living organisms and their interactions with their environment. At a minimum, this study explores the functions and processes of cells, tissues, organs, and systems within various species of living organisms and the roles and the interdependencies of organisms within populations, communities, ecosystems, and the biosphere. Students have opportunities to: (1) gain an understanding of the history of the development of biological knowledge, (2) explore the uses of biology in various careers, and (3) cope with biological questions and problems related to personal needs and social issues. This is a Core 40 and AHD course (Biology) with competencies defined and is at least 25% laboratory.

Prerequisites: None

2 semesters, 2 credits

Earth and Space Science I (L) - Earth and Space Science I is a course focusing on the study of the earth's lithosphere, atmosphere, hydrosphere, and its celestial environment. Students enrolled in Earth and Space Science I analyze and describe Earth's interconnected systems that may be changing or may be in equilibrium. Students examine energy at work in forming and modifying earth materials, landforms, and continents through geological time. Through regular laboratory and field investigations, students understand the history and development of the earth and space sciences, explore the uses of knowledge of the earth and its environment in various careers, and investigate earth and space science problems concerning personal needs and community issues related to science.

2 semesters, 2 credits

Principles of Biomedical Sciences - The course provides an introduction to this field through “hands-on” projects and problems. Student work involves the study of human medicine, research processes and an introduction to bioinformatics. Students investigate the human body systems and various health conditions including heart disease, diabetes, hypercholesterolemia, and infectious diseases. A theme through the course is to determine the factors that led to the death of a fictional person. After determining the factors responsible for the death, the students investigate lifestyle choices and medical treatments that might have prolonged the person's life.

Key biological concepts included in the curriculum are: homeostasis, metabolism, inheritance of traits, feedback systems, and defense against disease. Engineering principles such as the design process, feedback loops, fluid dynamics, and the relationship of structure to function will be included where appropriate. The course is designed to provide an overview of all courses in the Biomedical Sciences program and to lay the scientific foundation necessary for student success in the subsequent courses.

Prerequisite: Concurrent enrollment in Biology I is required
“B” in 8th grade Math and Science

2 semesters, 2 credits

TECHNOLOGY EDUCATION

<u>DOE Code</u>	<u>Course Title</u>	<u>Recommended Grade Level</u>	<u>Credit</u>
4812	Introduction to Engineering Design	9-10	2

COURSE DESCRIPTION

Introduction to Engineering Design (Ivy Tech ADMF 103) – This is the introductory course in Project Lead the Way Engineering. This course develops student problem-solving skills with emphasis placed on the development of three-dimensional solid models. Students will work from sketching simple geometric shapes to applying a solid modeling computer software package. They will learn an industrial model for solving problems and how the process is used in the manufacturing process. CAD will be used to analyze and evaluate product design. Students will use a state-of-the-art prototype machine that will build any project that they draw. An end-of-course assessment can allow students to receive college credit for this course.

Prerequisite: “C” in 8th grade Math and Language Arts

2 semesters, 2 credits

- _____ CORE 40 DIPLOMA
- _____ CORE 40 WITH ACADEMIC HONORS
- _____ CORE 40 WITH TECHNICAL HONORS

Name _____

ROCHESTER HIGH SCHOOL Four Year Plan

SUMMER SCHOOL: PE / Health
(circle one if interested)

FRESHMAN

1. English 9
2. Geography
3. Biology 1
4. Algebra 1 or Geometry (circle one)
5. _____
6. _____
7. _____

Student Signature

Parent Signature

Date _____

SUMMER SCHOOL: _____

SOPHOMORE

1. Interactive Media
2. English 10
3. Geometry or Algebra II (circle one)
4. Science
5. _____
6. _____
7. _____

Student Signature

Parent Signature

Date _____

SUMMER SCHOOL: _____

JUNIOR

1. English 11
2. U.S. History
3. Algebra II or PreCal/Trig (circle one)
4. Science
5. _____
6. _____
7. _____

Student Signature

Parent Signature

Date _____

SUMMER SCHOOL: _____

SENIOR

1. Government/Economics
2. English 12
3. Math or QR
4. _____
5. _____
6. _____
7. _____

Student Signature

Parent Signature

Date _____