

***Biomedical and Health Sciences Curriculum Framework**

Subject Area	9 th Grade	10 th Grade	11 th Grade	12 th Grade
English	English 9 (<i>integrated units</i>)	English 10 (<i>integrated units</i>)	English 11 (<i>integrated units</i>)	English 12 (<i>integrated unit- research paper using medical research topic</i>)
Mathematics	Algebra I or Integrated Mathematics I (<i>integrated units</i>)	Geometry or Integrated Mathematics II (<i>integrated units</i>)	Algebra II or Integrated Mathematics III (<i>integrated units</i>)	**Pre-calc/Trig, **Calculus, **Trigonometry **Statistics & Probability (<i>integrated units</i>)
Science	Biology or Integrated Science I (<i>integrated units</i>)	Chemistry or Integrated Science II (<i>integrated units</i>)	Physics or Integrated Science III (<i>integrated units</i>), and Human Anatomy & Physiology	**Microbiology, **Biotechnology, **AP Physics, **AP Biology
History/Social Studies	U.S. History (<i>integrated units</i>)	World History//Geography (<i>integrated units</i>)	U.S. Government/Civics (<i>integrated units</i>)	Economics/Psychology (<i>integrated units</i>)
Electives or other required courses students (electives depend on student pathway selection)	Physical Education Foreign Language <i>Intro to Med Term</i> (<i>integrated units</i>)	Physical Ed/Health Ed Foreign Language Fine and Performing Arts <i>Information Management I & II</i> (<i>integrated units</i>)	Physical Ed Foreign Language Fine and Performing Arts <i>Information Management III</i> (<i>integrated units</i>)	Physical Ed Foreign Language Advanced Fine and Performing Arts <i>Advanced Med Term</i> (<i>integrated units</i>)
¹ Health Sciences Core	² <i>Course I</i> <i>Human Structure and Function</i> <i>Healthcare Communication</i> <i>Teamwork</i>	<i>Course II</i> <i>Health Maintenance Practices</i> <i>Diseases and Disorders</i> <i>Safety Practices</i>	<i>Course III</i> <i>Healthcare Systems</i> <i>Ethical Behaviors</i> <i>Legal Practices</i>	<i>Course IV</i> <i>Employability Skills</i> <i>Information Technology Applications</i> ³ <i>Technical Preparation</i>
Work-based Learning Experiences	<i>Job shadow, Explorations</i> <i>Guided Study Tours</i>	<i>Job shadow, Explorations</i> <i>Guided Study Tours, Community Service or Service Learning</i>	<i>Community Service, Service Learning, Summer Externships</i>	<i>Integrated Externships</i> <i>Community Service, Service Learning</i> <i>Volunteer activity, Employment</i>

*The Biomedical and Health Sciences Framework will:

- Be aligned to the National Health Care Foundation Standards and national/state/district academic standards
- Include problem/project-based and interactive learning
- Be sequential and age-appropriate
- Include health and wellness content
- Integrate career development and employability skills
- Meet postsecondary entry requirements
- Include healthcare partner participation and input

**Dependent upon career path selection

Note: Italics indicate courses or integrated units to be developed as part of the project

¹ The Health Sciences Core courses will provide coverage of the National Healthcare Foundation Standards

² Course titles to be designated

³ Students may complete an industry certification to meet the technical preparation course

Pathways in the 12th grade:

Variance in student interest, course availability, and local economic conditions may determine pathway options for the 12th grade, which could include the following:

- Pathway 1 Therapeutic Services
Standards: client interaction, intra team communication, information collection, treatment planning and implementation, monitoring client status, patient and other client status evaluation

- Pathway 2 Diagnostic Services
Standards: multidisciplinary communication, assessment of patient and other client status, patient and other client movement, patient and other client interaction, preparation, procedure, evaluation and reporting

- Pathway 3 Biotechnology Research
Standards: contributions of biotechnology to health and the human condition, academic foundations, introduction to biotechnology knowledge areas and techniques, laboratory protocols and procedures, product design and development, bioethics

- Pathway 4 Health Informatics
Standards: communication, analysis, abstracting and coding, information systems, documentation, operations

- Pathway 5 Support Services
Standards: operations, aseptic procedures, resource management, aesthetics

Recommended senior course options for each pathway

Therapeutic Services	Diagnostic Services	Biotechnology Research	Health Informatics	Support Services
<p>*Academic:</p> <ul style="list-style-type: none"> • Statistics & Probability • Calculus or Pre-Calc/Trig • AP Biology • Microbiology • Psychology <p>Electives:</p> <ul style="list-style-type: none"> • Foreign Language • Advanced Arts • Advanced Med Term 	<p>*Academic:</p> <ul style="list-style-type: none"> • Statistics & Probability • Calculus or Pre-Calc/Trig • AP Physics • AP Biology • Microbiology • Psychology <p>Electives:</p> <ul style="list-style-type: none"> • Physical Education • Foreign Language • Advanced Med Term 	<p>*Academic:</p> <ul style="list-style-type: none"> • Statistics & Probability • Calculus or Pre-Calc/Trig • AP Physics • AP Biology • Microbiology • Biotechnology <p>Electives:</p> <ul style="list-style-type: none"> • Foreign Language • Advanced Med Term 	<p>*Academic:</p> <ul style="list-style-type: none"> • Statistics & Probability • Accounting • Economics • Psychology <p>Electives:</p> <ul style="list-style-type: none"> • Foreign Language • Advanced Med Term 	<p>*Academic:</p> <ul style="list-style-type: none"> • Statistics & Probability • Calculus or Pre-calc/Trig • AP Physics • Microbiology <p>Electives:</p> <ul style="list-style-type: none"> • Physical Education • Foreign Language

*It is recommended that these courses are developed in collaboration with postsecondary partners and are made available for dual credit or as concurrent enrollment.