### Student Plan of Study – Therapeutic Services–Patient Care

**Name____________________________ Date______________ School____________________________________**

Parent/Guardian Signature____________________________ Date____________ Advisor/Counselor Signature____________________________ Date_____________

Current Area of Interest: **Health Science/Therapeutic Services–Patient Care** - This PLAN OF STUDY should serve as a guide for the next four years. Courses listed in this plan are only recommended coursework and should be individualized to meet each student’s educational and career goals. All plans will meet minimum high school graduation requirements. Applicants to the University System of Georgia and the Technical College System of Georgia institutions should be advised that meeting minimum requirements will not guarantee admission. Postsecondary institutions may set additional requirements.

#### I. English/Language Arts

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Total 4 credits</th>
<th>Total 4 credits</th>
<th>Total 3 credits</th>
<th>Total 4 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td></td>
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<tr>
<td>10</td>
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<td>11</td>
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<tr>
<td>12</td>
<td></td>
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</tr>
</tbody>
</table>

**Advanced Composition**

CCGPS Pre-Calculus or Calculus or AP Calculus or AP Statistics or IB Math or Approved Dual Enrollment Course

**AP, Dual Enrollment, and Georgia Virtual School courses may be available.**

**Adv. English Elective Courses:**
- Literary Types/Composition
- Journalism
- Oral/Written Communication
- Speech

**Other English Elective Courses:**
- Adv Math Decision Making
- Math of Industry & Govern

**Sample Elective Courses:**
- Microbiology or AP/IB Science
- Biochemistry or Organic Chemistry
- Science Research III or IV

**Other Math Elective Courses:**
- Adv Math Decision Making
- Math of Industry & Govern
- Math of Finance

**Other Science Elective Courses:**
- Microbiology or AP/IB Science
- Biochemistry or Organic Chemistry
- Science Research III or IV

**Other Social Studies Elective Courses:**
- Humanities or AP/IB Soc Studies or Current Issues or Psychology or Sociology

**Other CTE Elective Courses:**
- Other CTE courses are available to complete a related pathway

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**At the end of the 11th grade, students planning to enter a University System of Georgia Institution or Technical College System of Georgia Institution should take the appropriate admissions test (SAT, ACT, Compass).**

**Legend:**
- *Science: Approved 4th Sciences may be used to meet both the required sciences and required elective in a Career, Technical, and Agricultural Education (CTAE) sequence of courses; see Fourth Science Requirements for more information. Student may take science courses in any sequence.
- *Math: Select Math sequence 1, 2, 3, 4, based on 9th grade entry course.
- **Students must complete two credits of the same world language for admission to University System of Georgia institutions.**
- **Students should complete a CTAE pathway and take the related end of pathway assessment.**

**NOTE:** Local systems may offer core courses in a different sequence; not all local systems offer every pathway. Students should explore all credit possibilities including Georgia’s Virtual School Program, Dual Enrollment, Advanced Placement (AP), International Baccalaureate (IB) and Work-Based Learning (WBL) to reach their educational and career goals.
Therapeutic Services/Health Care

**Occupations**

1. Physical therapists
2. Occupational therapists
3. Speech-language pathologists
4. Nursing assistants/Orderlies
5. Personal care aids
6. Licensed practical nurses
7. Respiratory therapists
8. EMTs
9. Public health specialists
10. Dentists
11. Chiropractors
12. Optometrists
13. Podiatrists

**Education Level Needed**

- **High School Diploma**
- **Associate’s Degree**
- **Bachelor’s Degree**
- **Master’s Degree**
- **Doctorate**

**Sample Pathway Occupations**

- **Registered Nurse**
- **Registered Respiratory Therapist**
- **Physician’s Assistant**
- **Surgical Technologist**
- **Medical Laboratory Technician**
- **Pharmacist**
- **Dentist**

**Salaries (2020)**

- **Healthcare Social Workers**: $70,600
- **Registered Nurses**: $81,500
- **Physical Therapists**: $98,200

**Contact Information**

For more information about program requirements and details, contact the academic advisor for your specific program of interest.
Educational programs in this cluster prepare students for careers in designing, planning, managing, building, and maintaining the built environment.

**Architectural Drawing and Design Pathway**
Students will learn drafting techniques through the study of geometric construction; as well as, an introduction to computer-aided drafting and design.

**Carpentry Pathway**
Students will first master basic safety skills, including ladders, scaffolding, trenching, and safety harnesses. In addition, students will be introduced to the State of Georgia Building Codes; as well as, skills needed to lay rafters, stairs and walls, and properly frame doors and windows.

**Electrical Pathway**
Students will learn the theoretical information regarding various conductors and properties, types of insulation, point of termination principles, and Ohm's Law calculations; as well as, identifying types of wire and cable and selection of electrical boxes and fittings.

**Masonry Pathway**
Students will demonstrate theoretical competency in general estimation of masonry materials, concrete footings, paving applications, masonry steps, flue chimney building codes, and concrete applications.

**Plumbing Pathway**
Students will examine the proper use of fittings, drains, waste and venting, copper tubing and steel piping, and the installation of hangers and supports, pipe sizing, residential fixtures and appliances.

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### Occupation Specialties

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Average Annual Wage</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carpenters</td>
<td>High School</td>
<td>$35,700</td>
<td>730</td>
</tr>
<tr>
<td>Construction Managers</td>
<td>Associate's Degree</td>
<td>$78,300</td>
<td>490</td>
</tr>
<tr>
<td>Architectural &amp; Civil Drafters</td>
<td>Associate's Degree</td>
<td>$49,700</td>
<td>40</td>
</tr>
<tr>
<td>Surveyors</td>
<td>Bachelor's Degree</td>
<td>$44,200</td>
<td>30</td>
</tr>
<tr>
<td>Cost Estimators</td>
<td>Bachelor's Degree</td>
<td>$57,300</td>
<td>210</td>
</tr>
<tr>
<td>Electricians</td>
<td>High School</td>
<td>$40,700</td>
<td>340</td>
</tr>
<tr>
<td>HVACR Mechanics &amp; Installers</td>
<td>Some College</td>
<td>$38,500</td>
<td>150</td>
</tr>
<tr>
<td>Sheet Metal Workers</td>
<td>High School</td>
<td>$41,500</td>
<td>160</td>
</tr>
<tr>
<td>Welders, Cutters, &amp; Welder Fitters</td>
<td>High School</td>
<td>$32,400</td>
<td>480</td>
</tr>
</tbody>
</table>

Richard Woods, Georgia’s School Superintendent June 2015
Architecture & Construction Cluster

**Machining Operations Pathway**
Students will learn introductory skills needed for operation of lathe and milling machines, and other trade equipment; as well as, acquiring skills needed to be successful as a machinist.

**Welding Pathway**
Students will develop knowledge and apply safe-operating skills needed to demonstrate the proper set of oxyfuel and shield metal arc welding equipment; as well as, creating accurate cuts and performing washing and gouging procedures, checking welding codes and reviewing work pieces, imperfections, common test methods, and evaluating proper work and equipment setups.

**Sheet Metal Pathway**
Students will master basic sheet metal techniques and basic trade mathematics; as well as, identifying the rate, selection, and use of steel and other metals to develop and fabricate basic sheet metal projects. In addition, students will learn basic parallel line development and skills using fasteners, hangers, and other support systems.

**Heating, Ventilation, Air-Conditioning Refrigeration (HVACR) Pathway**
Students will develop skills and knowledge for concepts of conditioning air within a given space; as well as, learn about the skills needed to install hardware and systems used by HVACR technicians.

**Heating, Ventilation, Air-Conditioning Refrigeration (HVACR)-Electrical Pathway**
Students will learn about refrigeration and heating processes of electronic circuitry; as well as, acquire introductory skills and knowledge needed for conduit bending and installation.

**Fine Furniture - Cabinetmaking Pathway**
Students will learn about the world of woodworking to develop competencies, in-depth knowledge of hand-tool and machine safety, craftsmanship, and technology essential to the fine furniture/cabinetmaking industry.

**Industry-Validated Credentials**
Students have an opportunity to gain valuable skills and knowledge through participation and completion of all required courses in a career pathway. Obtaining such skills will potentially provide students with increased opportunities to earn industry-validated credentials while still in high school, thus leading to increased earning potential throughout the students’ career span.

**Postsecondary Transition:**
- Students who will continue their education in a Program of Study at one of the University System of Georgia institutions should prepare to take the ACT or SAT for admissions. Admission's testing varies from institution to institution. Students should contact the selected institution for specific testing information. Additional admissions information can be found at Staying On Course. [www.usg.edu/student_affairs/documents/Staying_on_Course.pdf](http://www.usg.edu/student_affairs/documents/Staying_on_Course.pdf)
- Students who will continue their education in a Program of Study at one of the Technical College System of Georgia institutions should prepare to take the COMPASS test for admissions.
- Students who will continue their education and training in the U.S. Military should take the ASVAB assessment.
- Students should utilize GAfutures.org to select the most appropriate postsecondary opportunities to match their selected career field, including state-registered apprenticeships.
- Georgia's dual-credit programs have been combined into one program entitled Move on When Ready, in which high school students may earn their high school course credits while taking college courses.
Information Technology Cluster

Educational programs in this cluster prepare students to build linkages in information technology occupations for entry level, technical, and professional careers related to the design, development, support and management of hardware, software, multimedia, and systems integration services.

**Web & Digital Design Pathway**
Students will create, design and produce interactive multimedia products and services used in business, training, entertainment, communications, and marketing.

**Programming Pathway**
Students will learn essential skills involved in the design, development, implementation, and maintenance of computer systems and software, requiring knowledge of computer operating systems, programming languages, and software development.

**Computer Science Pathway**
Students will prepare for entry level, technical, and professional IT careers, including the design, development, implementation, and maintenance of computer systems and software, as well as knowledge of computer operating systems, programming languages, and software development required of cutting-edge technologies.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Average Annual Wage</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer System Analysts</td>
<td>Bachelor’s Degree</td>
<td>$78,000</td>
<td>810</td>
</tr>
<tr>
<td>Application Software Developers</td>
<td>Bachelor’s Degree</td>
<td>$85,700</td>
<td>350</td>
</tr>
<tr>
<td>Computer Support Specialists</td>
<td>Some College</td>
<td>$45,600</td>
<td>990</td>
</tr>
<tr>
<td>Network and Computer System Administrators</td>
<td>Bachelor’s Degree</td>
<td>$73,000</td>
<td>580</td>
</tr>
<tr>
<td>Computer and Information Systems Managers</td>
<td>Bachelor’s Degree</td>
<td>$111,400</td>
<td>370</td>
</tr>
<tr>
<td>Computer Network Support Specialists</td>
<td>Some College</td>
<td>$45,600</td>
<td>190</td>
</tr>
<tr>
<td>Web Developers</td>
<td>Bachelor’s Degree</td>
<td>$79,600</td>
<td>350</td>
</tr>
<tr>
<td>Informatics Nurse Specialists</td>
<td>Bachelor’s Degree</td>
<td>$72,000</td>
<td>810</td>
</tr>
</tbody>
</table>

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Information Technology Cluster

Information Support & Services Pathway
Students will learn to deploy and implement computer systems and software; as well as, provide technical assistance and manage information systems through the creation of technical documentation and information management systems.

Networking Pathway
Students will understand and apply the necessary steps for network analysis, planning, and implementation to include the design, installation, maintenance, and management of network systems.

Health IT (Information Technology) Pathway
Students will learn to connect the healthcare industry with information technology skills that include the design, development, support, and management of hardware, software, multimedia, and systems integration services. Students will connect healthcare industry skills with information technology skills that include capturing, managing, and processing diagnostic images and clinical data.

Cybersecurity Pathway
Students will understand and apply cybersecurity terminology and practices, examine fundamental skills of internal and external threats to network security and design, enforce network level security policies, and learn how to protect industry data and information.

Industry-Validated Credentials
Students have an opportunity to gain valuable skills and knowledge through participation and completion of all required courses in a career pathway. Obtaining such skills will potentially provide students with increased opportunities to earn industry-validated credentials while still in high school, thus leading to increased earning potential throughout the students’ career span.

Postsecondary Transition:

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Arts, Audio Video Technology & Communications Cluster

Educational programs in this cluster prepare students to design, produce, exhibit, perform, write, and publish multimedia content that includes visual and performing arts and design, journalism, and entertainment services.

**Audio-Video Technology and Film Pathway**
Students will design, manufacture, operate and/or repair audiovisual equipment; create presentations of sound, video, and data in a variety of formats; gather information, prepare broadcasts, build sets, and operate equipment used to record and transmit programs and/or motion pictures; and operate sound mixing and/or video editing equipment.

**Graphics Communication Pathway**
Students will create, develop, produce, and distribute products that incorporate words and/or pictorial images to convey information, ideas, and feelings, as well as utilizing the technologies of printing, publishing, packaging, electronic imaging, and related industries.

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<th>2012 Average Annual Wage</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop Publishers</td>
<td>Associate's Degree</td>
<td>$37,800</td>
<td>30</td>
</tr>
<tr>
<td>Graphic Designers</td>
<td>Bachelor's Degree</td>
<td>$49,900</td>
<td>390</td>
</tr>
<tr>
<td>Multimedia Artist and Animators</td>
<td>Bachelor's Degree</td>
<td>$54,900</td>
<td>150</td>
</tr>
<tr>
<td>Camera Operators, Television, Video and Motion Picture</td>
<td>Bachelor's Degree</td>
<td>$47,300</td>
<td>30</td>
</tr>
<tr>
<td>Film and Video Editors</td>
<td>Bachelor's Degree</td>
<td>$45,600</td>
<td>10</td>
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Richard Woods, Georgia’s School Superintendent June 2015
Arts, Audio Video Technology & Communications Cluster

**Graphics Design Pathway**
Students will communicate visually using typography and/or images to convey information; as well as, utilizing a range of cognitive skills, problem-solving skills, aesthetics, and crafts that include typography, visual arts, illustration, photography, and layout.

**Animation and Digital Media Pathway**
Students will apply components of 2-D and 3-D animation elements ranging from storyboarding to mastering industry software tools; as well as, the physics and anatomy of motion, the technology of animation, and the uses of cameras and lighting.

**Industry-Validated Credentials**
Students have an opportunity to gain valuable skills and knowledge through participation and completion of all required courses in a career pathway. Obtaining such skills will potentially provide students with increased opportunities to earn industry-validated credentials while still in high school, thus leading to increased earning potential throughout the students’ career span.

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Educational programs in this cluster prepare students to plan, manage, and perform the processing of materials into intermediate or final products, and the related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

**Integrated Manufacturing Technology Pathway**
Students will familiarize themselves with related careers and develop fundamental technological literacy as they learn about the history, systems, and processes of manufacturing; apply their knowledge of computer aided design (CAD), computer numerical control (CNC), robotics, computer assisted manufacturing (CAM), programmable logic controllers (PLC), automated guided vehicles (AGV), and computer integrated manufacturing (CIM); and learn how businesses engage in the production of products beginning with pre-production activities and continuing through post-production activities.

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<thead>
<tr>
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<th>Annual Openings 2012-2020</th>
</tr>
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<tbody>
<tr>
<td>Industrial Engineers</td>
<td>Bachelor’s Degree</td>
<td>$76,880</td>
<td>250</td>
</tr>
<tr>
<td>Industrial Engineering Technicians</td>
<td>Associate’s Degree</td>
<td>$48,330</td>
<td>45</td>
</tr>
<tr>
<td>Industrial Machinery Mechanics</td>
<td>High School</td>
<td>$42,500</td>
<td>293</td>
</tr>
</tbody>
</table>

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Manufacturing Cluster

**Mechatronics Pathway**
Students will master the integrated and automated systems of Mechatronics that encompasses a wide range of applications such as: Electronics, Mechanics, Fluid Power, Electrical Control Systems, Programmable Logic Controllers (PLC), Computers, and Robotics.

**Granite Technology Pathway**
Students will experience hands-on opportunities related to the various careers in the granite industry. In addition, students will learn about the types of training and required skills, the specialized tools and equipment used to polish, cut stone, handle material, sandblast, as well as, the MonuCAD design operations for specialized granite projects.

**Industry-Validated Credentials**
Students have an opportunity to gain valuable skills and knowledge through participation and completion of all required courses in a career pathway. Obtaining such skills will potentially provide students with increased opportunities to earn industry-validated credentials while still in high school, thus leading to increased earning potential throughout the students’ career span.

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