# Student Plan of Study – Diagnostics - Clinical Lab

## Name

## Date

## School

Parent/Guardian Signature  Date  Advisor/Counselor Signature  Date

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### Current Area of Interest: Health Science/Diagnostics - Clinical Lab

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.

### Grade Level

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>I. English/Language Arts</th>
<th>II. Math</th>
<th>III. Science</th>
<th>IV. Social Studies</th>
<th>V. Health/Personal Fitness</th>
<th>VII. Possible electives in additional pathways (students should check the local course description catalog for these and other electives)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9th Year</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>Advanced Academic Pathways</td>
</tr>
<tr>
<td></td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td><strong>English/Language Arts, Math, Science, Social Studies</strong></td>
</tr>
<tr>
<td></td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>An advanced academic pathway may be followed in any one of the content subjects listed above. Upon graduation, students earn an advanced academic pathway when they complete the required coursework to include at least one AP or one IB or one Dual Enrollment course. An advanced academic pathway should also include at least two credits in one world language. AP, Dual Enrollment and Georgia Virtual School courses may be available.</td>
</tr>
<tr>
<td>10th Year</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>World Language Pathways</td>
</tr>
<tr>
<td></td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td><strong>World Language Pathways</strong></td>
</tr>
<tr>
<td></td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>For a listing of world language courses offered at your high school, please check with your advisor, counselor, or local course description catalog. A world language pathway may be followed in any of the world language areas included in the state list of approved courses. Upon graduation, students earn a world language pathway when they complete three credits in one language. The third course may reflect an AP, IB or Dual Enrollment designation. Georgia Virtual School and ACCEL courses may be available.</td>
</tr>
<tr>
<td>11th Year</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>Fine Arts/Performing Arts Pathways</td>
</tr>
<tr>
<td></td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td><strong>Visual Arts, Dance, Music, Journalism, Theatre</strong></td>
</tr>
<tr>
<td></td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>1 Credit Earned</td>
<td>A fine arts pathway may be followed in any one of the five areas listed above. Upon graduation, students complete a fine arts/performing arts pathway when three courses have been successfully completed in any one of the five areas. A student should consult a counselor or advisor for related coursework. AP, Dual Enrollment, and Georgia Virtual School courses may be available.</td>
</tr>
</tbody>
</table>

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### Sample Elective Courses

- Literary Types/Composition
- Journalism
- Oral/Written Communication

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### Other Elective Courses

- Advanced Other Elective Courses:
  - Literary Types/Composition
  - Journalism
  - Oral/Written Communication

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### Other Math Elective Courses

- Adv Math Decision Making
- Math of Ind & Govern
- Math of Finance

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### Other Science Elective Courses

- Genetics or AP/IB
- Soc Studies or Psychology
- Sociology or Humanities

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### Other Social Studies Elective Courses

- Current Issues or AP/IB
- Soc Studies or Psychology
- Sociology or Humanities

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### Other CTAE Elective Courses

- Other CTAE courses are available to complete a related pathway

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### Advanced Placement

- AP, International Baccalaureate (IB) and Work-Based Learning (WBL) to reach their educational and career goals.

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*Science: Approved 4th Science may be used to meet both the required science 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.

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**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.
**SAMPLE Pathway OCCUPATIONS**

See *Georgia's HOT Careers to 2020* for more information on high-skilled, high-wage and high-demand occupations.

<table>
<thead>
<tr>
<th>Occupation Specialties</th>
<th>Entry Level of Education Needed</th>
<th>2012 Annual Wage</th>
<th>Annual Openings 2012-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Medical Technologists</em></td>
<td>Bachelor’s Degree</td>
<td>$53,000</td>
<td>210</td>
</tr>
<tr>
<td><em>Medical and Health Services Managers</em></td>
<td>Bachelor’s Degree + Work Experience</td>
<td>$87,000</td>
<td>510</td>
</tr>
<tr>
<td>Medical &amp; Clinical Laboratory Technicians</td>
<td>Associate’s Degree</td>
<td>$34,200</td>
<td>244</td>
</tr>
</tbody>
</table>

Source: Georgia Department of Labor/ONET

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**For more information about your education and career planning, including valuable financial aid information that includes grants and scholarships, see your school counselor.**

<table>
<thead>
<tr>
<th>Current Georgia Graduation Rule</th>
<th>Coursework</th>
<th>Credits</th>
<th>Coursework</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. English/Language Arts</td>
<td>4</td>
<td>V. Health &amp; Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>II. Math</td>
<td>4</td>
<td>VI. **Career, Technical &amp; Agricultural Education and/or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>III. <em>Science</em></td>
<td>4</td>
<td>**World Languages, and/or Fine Arts</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IV. Social Studies</td>
<td>3</td>
<td>VII. Electives</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>23</td>
<td></td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>

*Selected 4th Science courses may be used to meet both the required science and required elective in a CTAE sequence of courses.

**Students must complete three credits to complete a CTAE pathway and take the end of pathway assessment.

***Students must complete two credits of the same world language for admission to Georgia Board of Regents colleges/universities.

**** Current graduation requirements should be met in all content areas.

NOTE: This plan represents minimum graduation requirements. Local systems may require additional coursework.

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**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. Tests for admissions may vary from institution to institution. 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 US Military should take the ASVAB assessment.
- Students should utilize electronic college and career databases to select the most appropriate postsecondary opportunities to match their selected career field, including 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.

**Possible Student Pathway Credentialing Opportunities:**

Students completing a pathway are eligible to take a Credentialing/End of Pathway Assessment (EOPA) upon successful completion of the three required courses in the pathway. For specific assessment information, refer to [http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/CTAE-Georgia-Assessments.aspx](http://www.gadoe.org/Curriculum-Instruction-and-Assessment/CTAE/Pages/CTAE-Georgia-Assessments.aspx)

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**Related Pathway Occupations:**

- Medical Technologists
- Medical & Clinical Laboratory Technicians
- Medical Lab Assistants
- Other Related Health Science Occupations:
  - Clinical Chemistry Technologists
  - Immunology Technologists
  - Microbiology Technologists
  - Registered Nurses
  - Physicians
  - Physicians Assistants
  - Nuclear Medicine Technologists

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**Diagnostics - Clinical Lab**

The Diagnostic Services pathway provides career opportunities for persons with a strong interest in the initial phase of detecting health problems—the diagnostic phase. This phase includes procedures such as x-rays, fluoroscopies, sonograms, and clinical laboratory tests examining blood and other body fluids. Workers in this pathway discover “evidence” that physicians use to make correct diagnoses and administer appropriate treatment. Occupations are increasingly more varied because of complex new technology seeking to explain how the human body works.

Clinical laboratory testing is critical in the detection and diagnosis of disease. Laboratory personnel examine and analyze body fluids and cells using complex chemical, blood, immunologic, and, bacteriological tests. Technologists evaluate test results and monitor programs to ensure accuracy of tests. Technicians perform less complex tests using automated analyzers or tests in accordance with detailed instructions.

Entry into the field of diagnostic services includes education/training in hospitals, technical colleges, colleges and universities, and the Armed Forces. Two-year programs are the most prevalent avenues for entry-level jobs. With experience and additional education and training, advancement opportunities exist in department administration, hospital administration, research, or sales with equipment manufacturers. As the population grows and ages, employment is projected to grow faster than average due to the increasing demand for diagnostic services.

Medical laboratory technologists (also known as medical laboratory scientists) and medical laboratory technicians collect samples and perform the tests to analyze body fluids, tissue, and other substances. Workers in the medical laboratories, technicians and technologist will enjoy a 11%-15% growth in occupations between 2010-2020, which is about as fast as the average for all occupations. Medical technologists generally have a bachelor’s degree, while technicians usually need an associate’s degree.

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Richard Woods, Georgia’s School Superintendent

"Educating Georgia’s Future"