

# Student Plan of Study—Diagnostics –Non-Invasive Diagnostic Technology

Name \_\_\_\_\_ Date \_\_\_\_\_ School \_\_\_\_\_

Parent/Guardian Signature \_\_\_\_\_ Date \_\_\_\_\_ Advisor/Counselor Signature \_\_\_\_\_ Date \_\_\_\_\_

*Current Area of Interest: **Health Science/Diagnostics-(Non-Invasive Diagnostic Technology)** - 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	I. English/Language Arts Total 4 credits	II. Math Total 4 credits	III. Science Total 4 credits	IV. Social Studies Total 3 credits	V. Health/Personal Fitness Total 1 credit	VII. Possible electives in additional pathways (students should check the local course description catalog for these and other electives) Total 4 credits
9	9 <sup>th</sup> Literature & Composition or Approved Dual Enrollment Course  1 credit  Credit Earned <input type="checkbox"/>	1 CCGPS Cord Algebra 2 CCGPS Analytic Geom 3 CCGPS Accel Cord Alg/Analytic Geom 4 CCGPS Accel Analytic Geom B/Adv Alg 1 credit *  Credit Earned <input type="checkbox"/>	Biology or Approved Dual Enrollment Course  1 credit *  Credit Earned <input type="checkbox"/>	American Government/Civics or AP Government/ Politics US or Approved Dual Enrollment Course  ½ credit  Credit Earned <input type="checkbox"/>	Health ½ credit Credit Earned <input type="checkbox"/> Personal Fitness ½ credit Credit Earned <input type="checkbox"/>  ***VI. CTAE Total 3 credits	<b>Advanced Academic Pathways</b> English/Language Arts, Math, Science, Social Studies 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 <a href="#">Dual Enrollment</a> course. An advanced academic pathway should also include at least two credits in one world language. AP, Dual Enrollment and <a href="#">Georgia Virtual School</a> courses may be available.
	10 <sup>th</sup> Literature & Composition or World Literature & Composition or Approved Dual Enrollment Course  1 credit  Credit Earned <input type="checkbox"/>	1 CCGPS Analytic Geometry 2 CCGPS Adv Algebra 3 CCGPS Accel Analytic Geometry/Adv. Alg 4 CCGPS Pre-Calculus 1 credit *  Credit Earned <input type="checkbox"/>	Physical Science or Physics or AP Physics or Approved Dual Enrollment Course  1 credit *  Credit Earned <input type="checkbox"/>	World History or AP World History or Approved Dual Enrollment Course  1 credit  Credit Earned <input type="checkbox"/>	25.52100 Intro to Healthcare Science or Approved Dual Enrollment Course  1 credit  Credit Earned <input type="checkbox"/>	
11	American Literature/ Composition or AP English Language & Composition/American Lit or Approved Dual Enrollment Course 1 credit Credit Earned <input type="checkbox"/>	1 CCGPS Adv. Algebra 2 CCGPS Pre-Calculus 3 CCGPS Accel Pre-Cal 4 CCGPS Cal or AP Cal  1 credit * Credit Earned <input type="checkbox"/>	Chemistry or Environmental Science or Earth Systems or AP/IB or Approved Dual Enrollment Course 1 credit * Credit Earned <input type="checkbox"/>	United States History or AP US History or IB History of the Americas or Approved Dual Enrollment Course  1 credit Credit Earned <input type="checkbox"/>	25.44000 Essentials of Healthcare or Approved Dual Enrollment Course  1 credit Credit Earned <input type="checkbox"/>	<b>Fine Arts/Performing Arts Pathways</b> Visual Arts, Dance, Music, Journalism, Theatre 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, <a href="#">Dual Enrollment</a> and <a href="#">Georgia Virtual School</a> courses may be available.
	At the end of the 11 <sup>th</sup> 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).					
12	Advanced Composition or British Literature or AP/IB English Literature & Composition or Approved Dual Enrollment Course 1 credit Credit Earned <input type="checkbox"/>	CCGPS Pre-Cal or Calculus or AP Calculus or AP Stats or IB Math or Approved Dual Enrollment Course 1 credit * Credit Earned <input type="checkbox"/>	Microbiology or Human Anatomy & Physiology or Approved Dual Enrollment Course  1 credit * Credit Earned <input type="checkbox"/>	Econ/Business/Free Enterprise or AP Macro Econ or AP Micro Econ or IB Econ or Approved Dual Enrollment Course ½ credit Credit Earned <input type="checkbox"/>	25.44500 Non-Invasive Diagnostic Technology or Approved Dual Enrollment Course  1 credit Credit Earned <input type="checkbox"/>	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 <a href="#">Georgia's Virtual School Program</a> , <a href="#">Dual Enrollment</a> , Advanced Placement (AP), International Baccalaureate (IB) and Work-Based Learning (WBL) to reach their educational and career goals.
	<b>Other English Elective Courses:</b> Literary Types/Composition Journalism Oral/Written Communication Speech	<b>Other Math Elective Courses:</b> Adv Math Decision Making Math of Ind & Govern Math of Finance	<b>Other Science Elective Courses:</b> AP/IB Science	<b>Other Social Studies Elective Courses:</b> Current Issues or AP/IB Soc Studies or Psychology or Sociology or Humanities	<b>Other CTAE Elective Courses:</b> Other CTAE courses are available to complete a related pathway	

Health Science

SAMPLE Pathway OCCUPATIONS			
See * <a href="#">Georgia's HOT Careers to 2020</a> for more information on high-skilled, high-wage and high-demand occupations.			
Occupation Specialties	Entry Level of Education Needed	2012 Annual Wage	Annual Openings 2012-2020
Health Technicians and Technologists	Some College No Degree Required	\$34,700	10
Diagnostic Medical Sonographers	Associate's Degree	\$59,400	50
Radiologic Technologists	Associate's Degree	\$51,000	240
Optometrists	Advanced Degree	\$84,400	10

Source: Georgia Department of Labor/ONET

<p><b>*Related Pathway Occupations:</b></p> <ul style="list-style-type: none"> <li>Diagnostic Medical Sonographers</li> <li>Histologic Technicians</li> <li>Neurodiagnostic Technologists</li> <li>Nuclear Medicine Technologists</li> <li>Nuclear Technicians</li> <li>Radiation Therapists</li> <li>Radiologists</li> <li>Respiratory Therapy Techs</li> </ul>	<p><b>Other Related Health Science Occupations:</b></p> <ul style="list-style-type: none"> <li>Phlebotomists</li> <li>Medical Lab Techs</li> <li>Pharmacy Techs</li> <li>Registered Nurses</li> <li>Physicians</li> <li>Physician's Assistants</li> <li>Medical &amp; Health Services Managers</li> </ul>
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\*ONET Online

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

*** <a href="#">Current Georgia Graduation Rule</a>			
Coursework	Credits	Coursework	Credits
I. English/Language Arts	4	V. Health & Physical Education	1
II. Math	4	VI. **Career, Technical & Agricultural Education and/or ***World Languages, and/or Fine Arts	3
III. *Science	4	VII. Electives	4
IV. Social Studies	3	<b>TOTAL</b>	<b>23</b>

\*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.

- 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>

**Diagnostics -Non-Invasive Technology in Healthcare**

The Diagnostic Services pathway provides career opportunities for persons with a strong interest in the diagnostic or initial phase of diagnosing health problems. This phase includes procedures such as x-rays, fluoroscopies, sonograms, and clinical laboratory tests that examine 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.

Radiology technologists (or radiographers) use specialized equipment to create images of the body's internal organs, tissues, and bones. X-rays are films of a patient's body that are developed and then evaluated by physicians. Experienced radiographers may perform fluoroscopies obtained when a patient drinks a solution to provide a contrast medium for physicians to see soft tissues in the body. CT (computed tomography) and MR (magnetic resonance) technologists produce cross-sectional x-rays of the human body.

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. Employment is projected to grow faster than average due to the increasing demand for diagnostic services as the population grows and ages.

Non-invasive diagnostic technology allows healthcare specialist to diagnose without breaking the skin or entering a cavity or organ of the body.

