

Georgia Department of Education  
2015-2016

Course Number	Course Name	CTAE Cluster	Approved as a 4th Science for graduation	Approved as a 4th Science by USG	HOPE
2.42100	Animal Science Technology/Biotechnology	Agriculture, Food, and Natural Resources	X	X	X
21.45700	Appropriate and Alternative Energy Technologies	Energy	X	X	X
21.45100	Energy and Power Technologies	Energy	X	X	X
25.56900	Applications of Biotechnology	Health Science	X	X	X
25.57000	Essentials of Biotechnology	Health Science	X	X	X
25.44000	Essentials of Healthcare	Health Science	X	X	X
25.44600	Sports Medicine	Health Science	X	X	X
20.41400	Food for Life	Human Services	X	X	X
20.41810	Food Science	Human Services	X	X	X
20.41710	Food & Nutrition Through the Lifespan	Nutrition & Food Science	X	X	X
3.45100	Forest Science	Agriculture, Food, and Natural Resources	X	X	X
1.46100	General Horticulture and Plant Science	Agriculture, Food, and Natural Resources	X	X	X
3.41100	Natural Resources Management	Agriculture, Food, and Natural Resources	X	X	X
2.44100	Plant Science and Biotechnology	Agriculture, Food, and Natural Resources	X	X	X
21.45300	Advanced AC and DC Circuits	Science, Technology, Engineering, & Mathematics	X	X	X
11.01600	Advanced Placement Computer Science	Information Technology	X	X	X
11.01700	International Baccalaureate Computer Science, Year One	Information Technology	X	X	X
11.01710	International Baccalaureate Computer Science, Year Two	Information Technology	X	X	X
11.47100	Computer Science Principles	Information Technology	X	X	X
11.47200	Programming, Games, Apps and Society	Information Technology	X	X	X
21.45400	Digital Electronics	Science, Technology, Engineering, & Mathematics	X		X

Georgia Department of Education  
2012-2014

Course Number	Course Name	CTAE Pathway	Approved as a 4th Science for graduation	Approved as a 4th Science with USG	HOPE	Not approved in 2015-2016
1.46100	General Horticulture and Plant Science	Plant Science/Horticulture	X	X	X	
2.42100	Animal Science Technology/ Biotechnology	Agriscience	X	X	X	
2.42200	Equine Science	Other GPS Agriculture Courses (9-12)	X	X	X	X
2.44100	Plant Science and Biotechnology	Agriscience	X	X	X	
20.41400	Food for Life	Nutrition & Food Science	X	X	X	
20.41710	Food & Nutrition Through the Lifespan	Nutrition & Food Science	X	X	X	
20.41810	Food Science	Nutrition & Food Science	X	X	X	
21.45100	Energy and Power Technology	Energy Systems	X	X	X	
21.45700	Appropriate and Alternative Energy Technologies	Energy Systems	X	X	X	
25.44000	Essentials of Healthcare	Health Science	X	X	X	
25.44600	Sports Medicine	Health Science	X	X	X	
25.56800	Introduction to Biotechnology	Biotechnology Research and Development	X	X	X	X
25.56900	Applications of Biotechnology	Biotechnology Research and Development	X	X	X	
25.57000	Essentials of Biotechnology	Biotechnology Research and Development	X	X	X	
11.01600	Advanced Placement Computer Science	Information Technology	X	X	X	
2.42400	Veterinary Science	Veterinary Science	X		X	X
2.47500	Biotechnology	Other GPS Agriculture Courses (9-12)	X		X	pending
3.41100	Natural Resources Management	Other GPS Agriculture Courses (9-12)	X		X	pending
3.45100	Forest Science	Forestry/Natural Resources	X		X	pending
3.45300	Wildlife Management	Agriculture, Food, and Natural Resources	X		X	pending

Georgia Department of Education

<b>Course Number</b>	<b>Course Name</b>	<b>CTAE Pathway</b>	<b>Approved as a 4th Science for graduation</b>	<b>Approved as a 4th Science with USG</b>	<b>HOPE</b>	<b>Not approved in 2015-2016</b>
21.45200	Foundations of Electronics	Electronics	X		X	X
21.45300	Advanced AC and DC Circuits	Electronics	X		X	
21.45400	Digital Electronics	Electronics	X		X	
21.47200	Engineering Applications	Engineering	X		X	X
25.52100	Introduction to Healthcare Science	Diagnostic Services	X		X	X
25.52200	Application of Therapeutic Services	Therapeutic Services-Medical Services	X		X	pending
25.56200	Concept of Emergency Medicine	Therapeutic Services-Emergency Services	X		X	pending
25.56400	Emergency and Disaster Preparedness	Therapeutic Services-Emergency Services	X		X	pending
25.58000	Principles of Physical Medicine	Physical Medicine	X		X	pending
25.58100	Concepts of Physical Medicine	Physical Medicine	X		X	pending
25.58200	Rehabilitation in Physical Medicine	Physical Medicine	X		X	pending
47.46600	Aviation Meteorology	Flight Operations	X		X	pending



*Richard Woods, Georgia's School Superintendent*  
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**Fourth Science Options**  
**2015-2016 (Tentative)**

The following courses count towards satisfying the fourth science requirement and a CTAE pathway completion requirement and **have been approved** by the Board of Regents as a fourth science.

Course Number	Course Name	CTAE Pathway
21.45700	Appropriate and Alternative Energy Technologies	Energy
21.45100	Energy and Power Technologies	Energy
25.56900	Applications of Biotechnology	Health Science
25.57000	Essentials of Biotechnology	Health Science
25.44000	Essentials of Healthcare	Health Science
25.44600	Sports Medicine	Health Science
20.41400	Food for Life	Human Services
20.41810	Food Science	Human Services
03.45100	Forest Science	Agriculture, Food, and Natural Resources
01.46100	General Horticulture and Plant Science	Agriculture, Food, and Natural Resources
03.41100	Natural Resources Management	Agriculture, Food, and Natural Resources
02.42100	Animal Science Technology/Biotechnology	Agriculture, Food, and Natural Resources
02.44100	Plant Science and Biotechnology	Agriculture, Food, and Natural Resources
20.41710	Food & Nutrition Through the Lifespan	Nutrition & Food Science
21.45300	Advanced AC and DC Circuits	Science, Technology, Engineering, & Mathematics
11.01600	Advanced Placement Computer Science	Information Technology
11.01700	International Baccalaureate Computer Science, Year One	Information Technology
11.01710	International Baccalaureate Computer Science, Year Two	Information Technology
11.47100	Computer Science Principles	Information Technology
11.47200	Programming, Games, Apps and Society	Information Technology

The following courses count towards satisfying the fourth science requirement and a CTAE pathway completion requirement but **are not** recognized as a fourth science by Board of Regents.

Course Number	Course Name	CTAE Pathway
21.45400	Digital Electronics	Science, Technology, Engineering, & Mathematics

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The following courses count towards satisfying the fourth science requirement.

<b>Course Number</b>	<b>Course Name</b>
26.01300	Biology II
26.01400	Advanced Placement Biology
26.01500	Genetics
26.01800	International Baccalaureate Biology, Year One
26.03100	Botany
26.05100	Microbiology
26.06100	Ecology
26.06110	Environmental Science
26.06200	Advanced Placement Environmental Science
26.06300	IB Environmental Systems, Year One
26.06310	IB Environmental Systems, Year Two
26.06400	Advanced Genetics/DNA Research
26.06500	Epidemiology
26.07100	Zoology
26.07200	Entomology
26.07300	Human Anatomy and Physiology
40.01100	Physical Science
40.02100	Astronomy
40.04100	Meteorology
40.05100	Chemistry I
40.05200	Chemistry II
40.05300	Advanced Placement Chemistry
40.05500	International Baccalaureate Chemistry, Year One
40.05600	International Baccalaureate Chemistry, Year Two
40.05700	Organic Chemistry ( <i>Magnet school and Post-AP only</i> )
40.05800	Biochemistry ( <i>Magnet school and Post-AP only</i> )
40.05900	Materials Chemistry ( <i>Post AP Chemistry only</i> )
40.06300	Geology
40.06400	Earth Systems
40.07100	Oceanography
40.06500 *	Fundamentals of Geospatial Technology
40.06600 *	Applications of Geospatial Technology
40.08100	Physics I
40.08200	Physics II
40.08310	Advanced Placement Physics 1
40.08320	Advanced Placement Physics 2
40.08410	Advanced Placement Physics C: Mechanics
40.08420	Advanced Placement Physics C: Electricity and Magnetism
40.08500	International Baccalaureate Physics SL
40.08600	International Baccalaureate Physics HL
40.08700	Environmental Physics ( <i>Post AP Physics only</i> )
40.08800	Special Topics in Modern Physics ( <i>Magnet school and Post-AP only</i> )
40.08900	Advanced Physics Principles/Robotics ( <i>Magnet school and Post-AP only</i> )
40.09100	Advanced Scientific Internship ( <i>Post AP Science</i> )
40.09210 *	Scientific Research I
40.09220 *	Scientific Research II
40.09230	Scientific Research III
40.09240	Scientific Research IV
40.09300	Forensic Science
40.09400	Chemical & Material Science Engineering ( <i>Post AP Chemistry only</i> )

\* Indicates the course has not been approved as a four science by the Board of Regents.



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List of courses that satisfy the fourth science requirement (continuation)

<b>Course Number</b>	<b>Course Name</b>
40.09500	International Baccalaureate Design Technology, Year One
40.09600	International Baccalaureate Design Technology, Year Two
40.09700	International Baccalaureate Marine Science, Year One
40.09710	International Baccalaureate Marine Science, Year Two

\* Indicates the course has not been approved as a four science by the Board of Regents.