



Indiana Department of Education

Dr. Katie Jenner, Secretary of Education

Indiana High School Quantitative Reasoning Courses

Pursuant to 511 Indiana Administrative Code 6-7.1-6, students must complete a mathematics or quantitative reasoning (QR) course each year of high school enrollment to achieve the Core 40 Diploma, Academic Honors Diploma, and Technical Honors Diploma. Students are also required to earn two credits in one of these courses during their junior or senior year. The Indiana Department of Education (IDOE) has provided the following list of QR courses that are available to satisfy this credit:

Advanced Placement (AP)

- 1564 AP Macroeconomics
- 1566 AP Microeconomics
- 3012 AP Environmental Science
- 3020 AP Biology
- 3060 AP Chemistry
- 3080 AP Physics 1: Algebra-Based
- 3081 AP Physics 2: Algebra-Based
- 3088 AP Physics C
- 4568 AP Computer Science Principles
- 4570 AP Computer Science A

International Baccalaureate (IB)

- 1580 IB Economics Higher Level
- 1582 IB Economics Standard Level
- 3032 IB Biology Higher Level
- 3070 IB Chemistry Higher Level
- 3072 IB Chemistry Standard Level
- 3096 IB Physics Higher Level
- 3098 IB Physics Standard Level
- 4584 IB Computer Science Higher Level
- 4586 IB Computer Science Standard Level

Science

- 3034 Biology Standard Level
- 3064 Chemistry I
- 3066 Chemistry II
- 3084 Physics
- 3086 Physics II
- 3108 Integrated Chemistry-Physics

Cambridge International

- 8104 Cambridge International A Level Biology
- 8106 Cambridge International AS Level Biology
- 8112 Cambridge International A Level Chemistry
- 8114 Cambridge International AS Level Chemistry
- 8116 Cambridge International A Level Computer Science
- 8118 Cambridge International AS Level Computer Science
- 8120 Cambridge International A Level Design and Technology
- 8122 Cambridge International AS Level Design and Technology
- 8124 Cambridge International A Level Economics
- 8126 Cambridge International AS Level Economics

Social Studies

- 1514 Economics
- 4558 Global Economics

Business Management, Marketing, Finance, and Entrepreneurship

- 4512 Business Math
- 4522 Advanced Accounting
- 5258 Finance and Investment
- 7265 Finance and Investment Capstone

Career and Technical

Education/Work-Based Learning

- 4540 Personal Financial Responsibility
- 5334 Consumer Economics

Advanced Manufacturing

- 4728 Robotic Design and Innovation
- 5606 Manufacturing II
- 5612 Industrial Automation and Robotics
- 5688 Industrial Technical Maintenance II
- 5782 Precision Machining I
- 5784 Precision Machining II
- 7100 Smart Manufacturing Systems
- 7105 Precision Machining Fundamentals
- 7107 Advanced Precision Machining
- 7219 Precision Machining Capstone
- 7222 Smart Manufacturing Capstone
- 7224 Industrial Automation and Robotics Capstone
- 7260 Industrial Electrical Capstone
- 7261 Industrial Maintenance Capstone

Science, Technology, Engineering, and Math (STEM)

- 4801 Computer Science I
- 4838 Mechanical Drafting and Design II
- 5236 Computer Science II
- 5249 Computer Science III: Software Development Capstone
- 5250 Computer Science III: Databases
- 5251 Computer Science III: Informatics
- 5253 Computer Science III: Cybersecurity Capstone
- 5652 Architectural Drafting and Design II
- 5694 Electronics and Computer Technology II
- 7197 BIM Architecture
- 7200 Fundamentals of Electricity and Motors
- 7202 Manufacturing Principles and Design
- 7223 Mechanical Design Capstone
- 7351 Topics in Computer Science
- 7352 Computer Science
- 7361 Electronic Fundamentals
- 7362 Electronics and Computer Technology Capstone

Architecture and Construction

- 4832 Construction Technology: Electrical II
- 5498 Construction Technology: HVAC II
- 5578 Construction Trades II
- 7119 Advanced Electrical
- 7242 Construction Trades Capstone
- 7244 HVAC Capstone
- 7263 Construction Trade Electrical Capstone
- 7297 Architecture, Engineering and Construction Capstone

Health Sciences

- 7167 Pharmacy Tech

Agriculture

- 5002 Agribusiness Management
- 5070 Advanced Life Science, Animals
- 5072 Advanced Life Science, Foods
- 5074 Advanced Life Science, Plants and Soils
- 5136 Landscape Management I
- 5137 Landscape Management II
- 7112 Agriculture Structures Fabrication and Designs
- 7228 Agriculture Mechanization and Technology Capstone
- 7234 Landscape Management Capstone
- 7238 Agribusiness Capstone
- 7262 Agricultural Research Capstone

Hospitality and Human Services

- 5344 Biochemistry of Food

Engineering

- 5518 Aerospace Engineering
- 5534 Computer Integrated Manufacturing
- 5538 Digital Electronics
- 5644 Principles of Engineering
- 5650 Civil Engineering and Architecture
- 5698 Engineering Design and Development

Indiana High School Quantitative Reasoning Courses

Transportation

- 5522 Aviation Maintenance II
- 5624 Diesel Service Technology II
- 7221 Diesel Services Capstone

- 7385 Aviation Management Capstone

Information Technology (IT)

- 7183 Principles of Computing
- 7184 Software Development
- 7185 Website and Database Development

Contact IDOE's [Office of Teaching and Learning](#) with any questions regarding this information.