

# *Sections of HB5 Relevant to College Readiness & Access*

Texas Higher Education Coordinating Board

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**TEXAS HIGHER EDUCATION  
COORDINATING BOARD**

## ***Foundation Program- 22-credit***

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- **4 credits of ELA-** English I, II, III, an advanced English credit
- **3 credits in Mathematics-** Algebra I, geometry, an advanced mathematics credit
- **3 credits Science-** Biology, IPC *or* advanced science, an advanced science
- **3 credits in Social Studies** -US history, ½ credit economics, ½ credit government, and *either* world history *or* world geography *or* new combination of w. history+ w. geography
- **2 credits in LOTE** (with exemptions, option for computer languages)
- **1 credit Fine arts**
- **1 credit Physical education**
- **5 elective credits**, may include advanced CTE or certification courses

***Eligible for general admission to a Texas public 4-year IHE***

## Advanced Courses- English Language Arts

English IV	Independent Study in Journalism
Independent Study in English	Advanced Broadcast Journalism III
Literary Genres	Advanced Journalism: Newspaper III
Creative Writing	Advanced Journalism: Yearbook III
Research & Technical Writing	AP English Literature and Composition
Humanities	IB Language Studies A1 Higher Level
Public Speaking III	Business English
Oral Interpretation III	Communications Applications (must be combined with another half credit from this list)
Debate III	Locally developed ELA course or other activity [pursuant to TEC, §28.002(g-1)]
Independent Study in Speech	College Prep ELA [pursuant to TEC, §28.014]

# Advanced Courses-Third Mathematics Credit

Mathematical Models with Applications	AP Calculus BC
Mathematical Applications in AFNR	AP Computer Science
Digital Electronics	IB Mathematical Studies Standard Level (SL)
Robotics Programming and Design	IB Mathematics SL
Algebra II	IB Mathematics Higher Level (HL)
Precalculus	IB Further Mathematics HL
AQR	Engineering Mathematics
Discrete Mathematics for Problem Solving	Discrete Mathematics for Computer Science
AP Statistics	Locally developed math course or other activity [pursuant to TEC, §28.002(g-1)]
AP Calculus AB	Mathematics course endorsed by an IHE [pursuant to TEC, §28.025(b-5)]
Algebraic Reasoning (in development for implementation in 2015-16)	Statistics (in development for implementation in 2015-2016)

## Advanced Courses-Second Science Credit

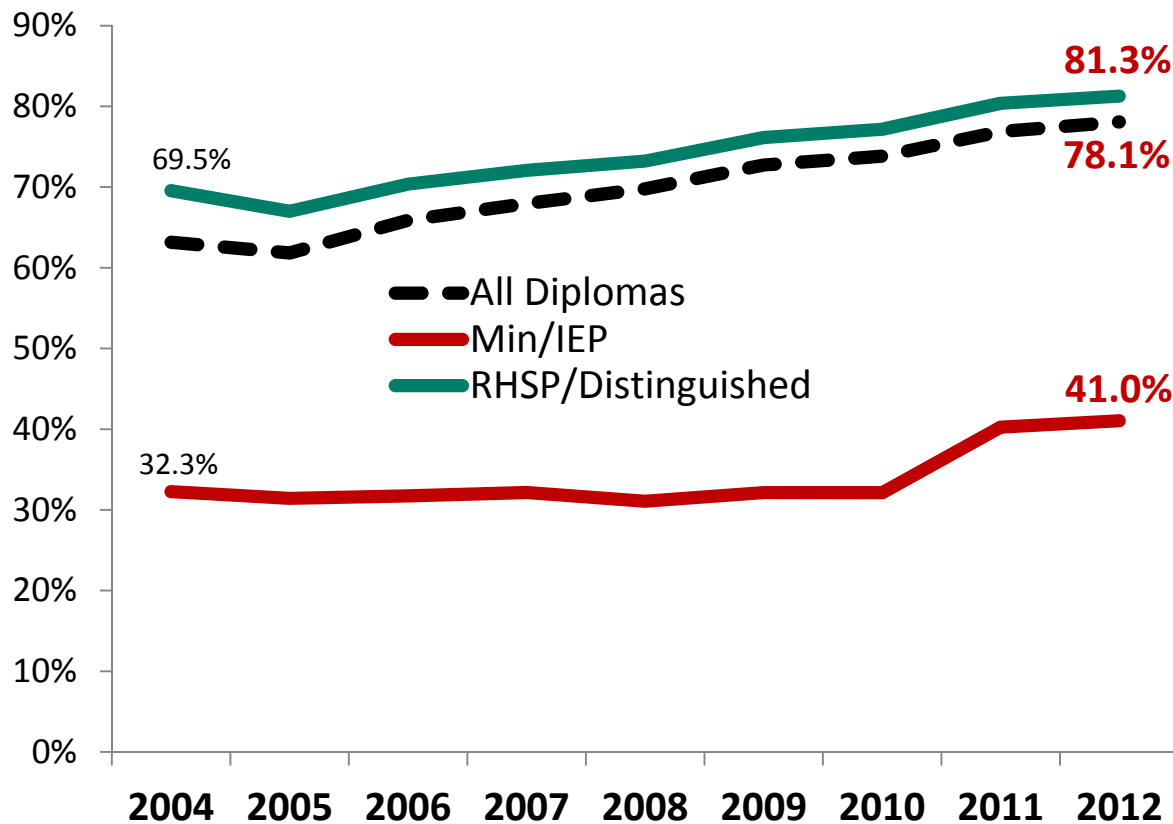
Integrated Physics and Chemistry (IPC)	Physics
Chemistry	Principles of Technology
AP Chemistry	AP Physics 1: Algebra-Based
IB Chemistry	IB Physics

## Advanced Courses-Third Science Credit

Chemistry	IB Physics
Physics	IB Environmental Systems
Aquatic Science	Advanced Animal Science
Astronomy	Advanced Plant and Soil Science
Earth and Spaced Science	Anatomy and Physiology
Environmental Systems	Medical Microbiology
AP Biology	Pathophysiology
AP Chemistry	Food Science
AP Physics 1: Algebra-Based	Forensic Science
AP Physics 2: Algebra-Based	Advanced Biotechnology
AP Physics C	Principles of Technology
AP Environmental Science	Scientific Research & Design
IB Biology	Engineering Design & Problem Solving
IB Chemistry	Principles of Engineering
Locally developed science course or other activity [pursuant to TEC, §28.002(g-1)]	science course endorsed by an IHE [pursuant to TEC, §28.025(b-5)]

# Students with more advanced diploma types achieved readiness at twice the rate of peers with less

**HS Graduates Enrolled in Higher Education and TSI ready in Math by Diploma Type**  
(Fall 2004-Fall 2012)

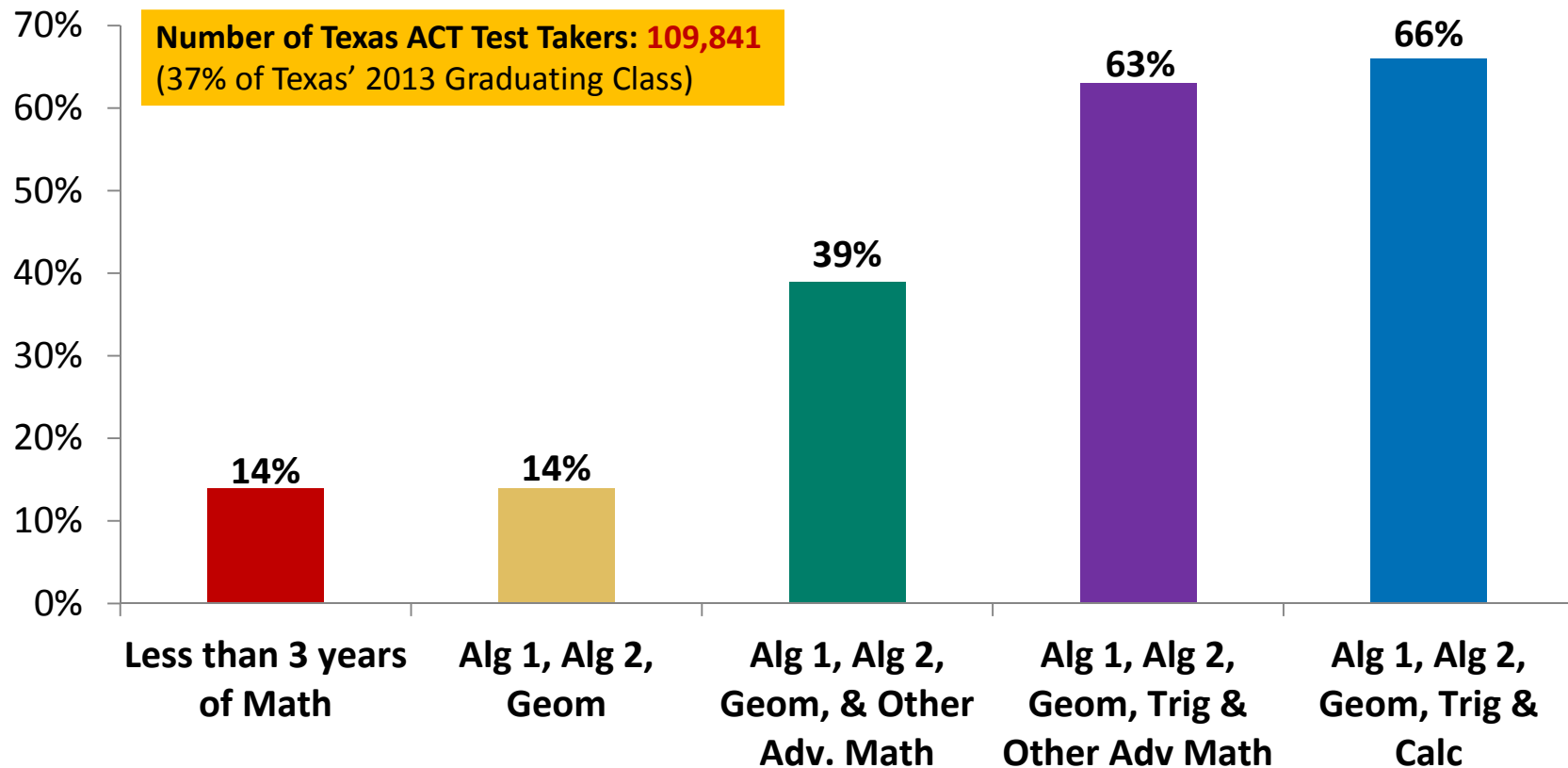


2012	RHSP/Dist	Min/IEP
Total Enrolled	127,368	10,941
Total Ready (Math)	103,504	4,490
Total Not Ready/UNK (Math)	23,864	6,451

**NOTE:** Readiness rates include students who met standards on TSI assessment or earned an exemption from assessment; data reflected includes prior TSI approved assessments including COMPASS, ASSET and ACCUPLACER

# The most recent data from HS graduates further illustrate role of coursework in college readiness

**Percent of HS Students Who Met ACT College Readiness Benchmark for Mathematics Based on Course-taking Pattern in High School (Actual)**  
(Texas HS Graduating Class, 2013)





# Endorsements

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An endorsement in any one of the following, which includes ***Science-4 Credits, Math-4 Credits:***

- **STEM**
- **Business and Industry** (e.g., data base management HVAC)
- **Public Service** (e.g., health sciences, law enforcement, culinary arts)
- **Arts and Humanities** (e.g., poli sci, languages, fine arts, history)
- **\*Multidisciplinary Studies**

***Foundation + Endorsement is the default for incoming HS freshmen***

# Fourth Mathematics Credit to Earn an Endorsement

Algebra II	IB Mathematical Studies Standard Level (SL)
Precalculus	IB Mathematics SL
Advanced Quantitative Reasoning	IB Mathematics Higher Level (HL)
Independent Study in Math	IB Further Mathematics HL
Discrete Mathematics for Problem Solving	Engineering Mathematics
AP Statistics	Statistics & Risk Management
AP Calculus AB	Discrete Mathematics for Computer Science
AP Calculus BC	Locally developed math course or other activity [pursuant to TEC, §28.002(g-1)]
Math Models (for the 2014-2015 school year only)	College Prep Math [pursuant to TEC, §28.014]
Algebraic Reasoning (in development for implementation in 2015-16)	Statistics (in development for implementation in 2015-2016)

## Fourth Science Credit to Earn an Endorsement

Chemistry	IB Physics
Physics	IB Environmental Systems
Aquatic Science	Advanced Animal Science
Astronomy	Advanced Plant and Soil Science
Earth and Space Science	Anatomy and Physiology
Environmental Systems	Medical Microbiology
AP Biology	Pathophysiology
AP Chemistry	Food Science
AP Physics 1: Algebra-Based	Forensic Science
AP Physics 2: Algebra-Based	Advanced Biotechnology
AP Physics C	Principles of Technology
AP Environmental Science	Scientific Research Design & Problem Solving
IB Chemistry	Principles of Engineering
locally developed science course or other activity [pursuant to TEC, §28.002(g-1)]	science course endorsed by an IHE [pursuant to TEC, §28.025(b-5)]

## *Endorsement: Business & Industry*

**(Option A)** a coherent sequence of courses for four or more credits in CTE that consists of at least two courses in the same career cluster including at least one advanced CTE course which includes any course that is the third or higher course in a sequence. The courses may be selected from courses in all CTE career clusters or CTE innovative courses approved by the commissioner of education. The final course in the sequence must be selected from one of the following CTE career clusters:

- Agriculture, Food, & Natural Resources
- Architecture & Construction
- Information Technology
- Arts, Audio/Video Technology, & Communications
- Manufacturing
- Business Management & Administration
- Hospitality & Tourism
- Transportation, Distribution, & Logistics
- Finance
- Marketing

**(Option B)** four English elective credits by selecting three levels in one of the following areas:

- advanced broadcast journalism
- public speaking
- advanced journalism: newspaper
- debate
- advanced journalism: yearbook

## Endorsement: STEM

### Includes Algebra II, Chemistry, and Physics

*Types of Careers*—Engineer (Petroleum, Mechanical, Electrical, Civil, Biomedical, Computer), Chemist, Physicist, Medical Scientist, Geoscientist, Biochemist, Mathematics or Science Teacher, Anthropologist, Archeologist, Astronomer, Athletic Trainer, Physician, Dentist, Chiropractor, Health Services Manager, Pharmacist, Physical Therapist, Dental Hygienist, Registered Nurse, Personal & Home Care Aide, Home Health Aide, Medical Assistant, Pharmacy Technician, Substance Abuse Counselor

**(Option A)** a coherent sequence of courses for four or more credits in CTE that consists of at least two courses in the same career cluster including at least one advanced CTE course which includes any course that is the third or higher course in a sequence. The courses may be selected from courses in all CTE career clusters or CTE innovative courses approved by the commissioner of education. The final course in the sequence must be selected from the STEM career cluster.

**(Option B)** a coherent sequence of four credits in computer science selected from the following:

- Fundamentals of Computer Science
- Discrete Mathematics for Computer Science
- Computer Science I
- Digital Forensics
- Computer Science II
- Game Programming and Design
- Computer Science III
- Mobile Application Development
- AP Computer Science
- Robotics Programming and Design
- IB Computer Science, Standard Level
- Independent Studies of Technology Applications
- IB Computer Science, Higher Level

## *Endorsement: Multidisciplinary Studies*

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- 4 advanced courses that prepare a student to enter the workforce successfully or postsecondary education without remediation from within one endorsement area or among endorsement areas that are **not** in a coherent sequence.
- Four credits in each of the four foundation subject areas to include English IV and chemistry and/or physics
- Four credits in advanced placement, IB, or dual credit selected from English, mathematics, science, social studies, economics, languages other than English, or fine arts

## *Distinguished Program- 26 credits*

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All foundation program requirements *plus*:

- Curriculum requirements for at least one endorsement
- a fourth year of mathematics, including **Algebra II**
- a fourth year of science
- two additional elective credit

*Required for eligibility for automatic admissions based on rank within the top 10% of the graduating class*

# College Prep Course

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- Each school district in partnership with at least one IHE is to develop and provide courses in college prep for mathematics and English language arts
- Recommended for 12<sup>th</sup> grade students who have not met college readiness
- **Successful** completion of the college prep course **exempts** the **student from TSI** with respect to the content area of the course *at the institution that the district partnered with to provide the course\**

*--duration of exemption and its applicability at non-partnering IHEs to be decided through negotiated rule-making*



## *Considerations*

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- Eligibility for admission vs. admission requirements vs. college readiness
- The importance of transparency
- Previous graduation plans and HB5 graduation plans (the standard rubric for admissions purposes is gone; transcript-level review)