Making the Case: Recommended Massachusetts CORE Curriculum
Defining the Problem

- Need for more skilled workforce requiring higher levels of education
- Percentage of students who graduate from high school college and career ready
- Number of students requiring remediation in English and Math
- Wide disparities in graduation rates and student performance among racial/ethnic groups
- Growing number of students in groups that have traditionally not performed at high levels
New Jobs Will Require More Education

Jobs requiring at least some postsecondary education will make up more than two thirds of new jobs.

Share of new jobs, 2000–2010

- High school dropout: 10%
- High school diploma: 22%
- Some postsecondary: 36%
- Bachelor’s degree: 31%

New Job Growth Along Educational Spectrum

According to the MA Division of Career Services, jobs requiring an associate’s degree or higher will account for 62% of all new jobs.
Impact of Education on Income

Educational Attainment is Related to Income

<table>
<thead>
<tr>
<th>Unemployment Rate in 2001</th>
<th>Education</th>
<th>Median Earnings in 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>7%</td>
<td>1.2</td>
<td>Professional Degree: $80,230</td>
</tr>
<tr>
<td>6%</td>
<td>1.1</td>
<td>Doctorate: $70,476</td>
</tr>
<tr>
<td>5%</td>
<td>2.1</td>
<td>Master's Degree: $55,302</td>
</tr>
<tr>
<td>4%</td>
<td>2.5</td>
<td>Bachelor's Degree: $46,276</td>
</tr>
<tr>
<td>3%</td>
<td>2.9</td>
<td>Associate's Degree: $35,389</td>
</tr>
<tr>
<td>2%</td>
<td>3.5</td>
<td>Some College No Degree: $32,400</td>
</tr>
<tr>
<td>1%</td>
<td>4.2</td>
<td>High School Graduate: $28,807</td>
</tr>
<tr>
<td>0</td>
<td>7.3</td>
<td>Less Than High School: $21,391</td>
</tr>
</tbody>
</table>

Source: U.S. Bureau of the Census; Bureau of Labor Statistics
Data shows earnings for year-round, full-time workers 25 years and over; unemployment rate for those 25 and over
Too few Students Graduate College-Ready

Percentage of 9th Grade Students Graduating on Time and College-Ready

- Latino: 14% (Massachusetts), 20% (United States)
- African American: 29% (Massachusetts), 23% (United States)
- White: 43% (Massachusetts), 40% (United States)
- Total: 38% (Massachusetts), 34% (United States)

What is the Best Indicator of Being Prepared for College?

Bachelor's Degree Completion by Mathematics Courses by Graduation, 1992

- Algebra I: 10.2%
- Geometry: 22.2%
- Algebra II: 40.3%
- Trigonometry: 62.1%
- Pre-Calculus: 74.6%
- Calculus: 82.7%

HS Graduation Requirements – 2005 DOE Survey

Percentage of Local, Regional, and Vocational High Schools Requiring Math and Science to Graduate

- 2 yrs: 15.4% Math, 27.0% Science
- 3 yrs: 62.9% Math, 59.1% Science
- 4 yrs: 13.1% Math, 13.9% Science
College-Bound Does not Mean College-Ready

Nearly three in ten, first-year students are placed immediately into a remedial college course.

Percentage of U.S. first-year students in two-year and four-year institutions requiring remediation

- Reading: 11%
- Writing: 14%
- Math: 22%
- Reading, Writing or Math: 28%

Many college students who need remediation, especially in reading and math, do not earn an associate’s or a bachelor’s degree.

Percentage of college students not earning degree by type of remedial coursework

- Remedial reading: 76%
- Remedial math: 63%

### Comparing Requirements

<table>
<thead>
<tr>
<th></th>
<th>Current Mass.</th>
<th>Four-Year Public Higher Education</th>
<th>Massachusetts Core Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English</strong></td>
<td></td>
<td>4 credits</td>
<td>4 credits</td>
</tr>
<tr>
<td><strong>Math</strong></td>
<td></td>
<td>3 credits, including Algebra II</td>
<td>4 credits with at least Algebra II and Math in senior year</td>
</tr>
<tr>
<td><strong>Social Studies/US History</strong></td>
<td>1</td>
<td>2 credits</td>
<td>3 credits including US History and World History</td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td></td>
<td>3 credits (2 with lab)</td>
<td>3 credits of lab sciences</td>
</tr>
<tr>
<td><strong>Foreign Language</strong></td>
<td></td>
<td>2 credits in a single language</td>
<td>2 credits in a single language</td>
</tr>
<tr>
<td><strong>Health/ PE</strong></td>
<td>1</td>
<td></td>
<td>2 credits</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>MCAS</td>
<td></td>
<td>6 credits of electives</td>
</tr>
</tbody>
</table>
Next Steps: Massachusetts Core Curriculum

- Solicit additional input from superintendents, principals and teachers
- Develop additional guidance on the Core Curriculum including Companion Documents
- Present Admissions Advisory Committee findings and recommendations to Board of Higher Education
- Present the Core Curriculum to the Board of Education for discussion and action
Sixteen college preparatory courses distributed as follows:

A course is equivalent to one full school year of study. Courses count toward the distribution only if passed.

**English** - 4 courses

**Sciences** - 3 courses (including 2 with lab)

**Social Sciences** - 2 courses (including 1 in U.S. History)

**Foreign Languages** - 2 courses (in a single language)

**Electives** - 2 courses (from the above subjects or from the Arts & Humanities or Computer Sciences)

**Mathematics** - 3 courses (Algebra I & II and Geometry or Trigonometry, or comparable coursework)

“An additional year of college preparatory math taken in the senior year is strongly recommended.”
**Issues**

Prior to implementing 4\textsuperscript{th} year as a requirement:

- Should 4\textsuperscript{th} year requirement be in addition or in lieu of an existing course?
- How much time is needed for high schools to ramp up to demand for required 4\textsuperscript{th} year
- What type of math (or math options) should be required given students’ skill sets, e.g.,
  - Beyond algebra II or
  - Make algebra II a 2 year course or
  - Course in math “power standards” or
  - Refresher course of concepts students didn’t absorb in 1\textsuperscript{st} three years
    - course jointly developed by high school and college faculty
    - Online and/or dual enrollment format