**Master’s Programs in Computational Science and Engineering**

The Master of Science (SM) and Master of Engineering (ME) in CSE are one- and two-year programs of study offered by the Harvard School of Engineering and Applied Sciences. Students will achieve expertise in modeling and simulation as well as algorithms, parallel programming and analysis, and visualization of large data sets. Coursework includes a core of four courses in Applied Mathematics and Computer Science.

To earn the SM in CSE, a candidate will complete eight courses and an oral examination. To earn the ME in CSE, a candidate must also complete a year-long research project culminating in a thesis.

### Course requirements

<table>
<thead>
<tr>
<th>a total of 8 courses from these categories</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>core: AM 205/207, CS 205/207</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Applied Math electives*</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science electives*</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>domain electives</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>299r research courses</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AC298r seminar</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

*Approved electives are listed at [www.seas.harvard.edu/computational-science-and-engineering/cse-courses](http://www.seas.harvard.edu/computational-science-and-engineering/cse-courses)

### To apply

Application is through the Graduate School of Arts and Sciences. Visit [gsas.harvard.edu](http://gsas.harvard.edu) for details. The 2014 application deadline is December 15.

### Questions?

Contact Daniel Weinstock, Assistant Director of Graduate Studies in CSE, dweinsto@seas.harvard.edu

---

**Master’s Programs in Computational Science and Engineering**

The Master of Science (SM) and Master of Engineering (ME) in CSE are one- and two-year programs of study offered by the Harvard School of Engineering and Applied Sciences. Students will achieve expertise in modeling and simulation as well as algorithms, parallel programming and analysis, and visualization of large data sets. Coursework includes a core of four courses in Applied Mathematics and Computer Science.

To earn the SM in CSE, a candidate will complete eight courses and an oral examination. To earn the ME in CSE, a candidate must also complete a year-long research project culminating in a thesis.

### Course requirements

<table>
<thead>
<tr>
<th>a total of 8 courses from these categories</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>core: AM 205/207, CS 205/207</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Applied Math electives*</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science electives*</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>domain electives</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>299r research courses</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AC298r seminar</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

*Approved electives are listed at [www.seas.harvard.edu/computational-science-and-engineering/cse-courses](http://www.seas.harvard.edu/computational-science-and-engineering/cse-courses)

### To apply

Application is through the Graduate School of Arts and Sciences. Visit [gsas.harvard.edu](http://gsas.harvard.edu) for details. The 2014 application deadline is December 15.

### Questions?

Contact Daniel Weinstock, Assistant Director of Graduate Studies in CSE, dweinsto@seas.harvard.edu

---

**Master’s Programs in Computational Science and Engineering**

The Master of Science (SM) and Master of Engineering (ME) in CSE are one- and two-year programs of study offered by the Harvard School of Engineering and Applied Sciences. Students will achieve expertise in modeling and simulation as well as algorithms, parallel programming and analysis, and visualization of large data sets. Coursework includes a core of four courses in Applied Mathematics and Computer Science.

To earn the SM in CSE, a candidate will complete eight courses and an oral examination. To earn the ME in CSE, a candidate must also complete a year-long research project culminating in a thesis.

### Course requirements

<table>
<thead>
<tr>
<th>a total of 8 courses from these categories</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>core: AM 205/207, CS 205/207</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Applied Math electives*</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Computer Science electives*</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>domain electives</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>299r research courses</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AC298r seminar</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

*Approved electives are listed at [www.seas.harvard.edu/computational-science-and-engineering/cse-courses](http://www.seas.harvard.edu/computational-science-and-engineering/cse-courses)

### To apply

Application is through the Graduate School of Arts and Sciences. Visit [gsas.harvard.edu](http://gsas.harvard.edu) for details. The 2014 application deadline is December 15.

### Questions?

Contact Daniel Weinstock, Assistant Director of Graduate Studies in CSE, dweinsto@seas.harvard.edu
IACS courses offered 2014–15

**fall core courses**

AM 205 Advanced Scientific Computing: Numerical Methods
An examination of the mathematical foundations or a range of well-established numerical algorithms, exploring their use through practical examples.

CS 207 Systems Design for Computational Science
A project-based course emphasizing designing, building, testing, maintaining and modifying software for scientific computing.

**spring core courses**

AM 207 Advanced Scientific Computing: Stochastic Optimization Methods
Develops skills for computational research with a focus on stochastic approaches, emphasizing implementation and examples.

CS 205 Computing Foundations for Computational Science
An applications course highlighting the use of computers in solving scientific problems. Emphasizes parallel programming and “parallel thinking.”

**electives**

AC 209 Data Science fall
AC 274 Computational Modeling of Fluids and Soft Matter fall
AC 275 Computational Design of Materials spring
AC 298r Interdisciplinary Seminar in Computational Science and Engineering fall

IACS courses offered 2014–14

**fall core courses**

AM 205 Advanced Scientific Computing: Numerical Methods
An examination of the mathematical foundations or a range of well-established numerical algorithms, exploring their use through practical examples.

CS 207 Systems Design for Computational Science
A project-based course emphasizing designing, building, testing, maintaining and modifying software for scientific computing.

**spring core courses**

AM 207 Advanced Scientific Computing: Stochastic Optimization Methods
Develops skills for computational research with a focus on stochastic approaches, emphasizing implementation and examples.

CS 205 Computing Foundations for Computational Science
An applications course highlighting the use of computers in solving scientific problems. Emphasizes parallel programming and “parallel thinking.”

**electives**

AC 209 Data Science fall
AC 274 Computational Modeling of Fluids and Soft Matter fall
AC 275 Computational Design of Materials spring
AC 298r Interdisciplinary Seminar in Computational Science and Engineering fall

IACS courses offered 2014–15

**fall core courses**

AM 205 Advanced Scientific Computing: Numerical Methods
An examination of the mathematical foundations or a range of well-established numerical algorithms, exploring their use through practical examples.

CS 207 Systems Design for Computational Science
A project-based course emphasizing designing, building, testing, maintaining and modifying software for scientific computing.

**spring core courses**

AM 207 Advanced Scientific Computing: Stochastic Optimization Methods
Develops skills for computational research with a focus on stochastic approaches, emphasizing implementation and examples.

CS 205 Computing Foundations for Computational Science
An applications course highlighting the use of computers in solving scientific problems. Emphasizes parallel programming and “parallel thinking.”

**electives**

AC 209 Data Science fall
AC 274 Computational Modeling of Fluids and Soft Matter fall
AC 275 Computational Design of Materials spring
AC 298r Interdisciplinary Seminar in Computational Science and Engineering fall