# M.S. in Internet Engineering

## Degree Requirements

The bridge program curriculum requires a basic knowledge of computer and communications fundamentals.

All master's degree candidates must complete a minimum of 30 credits, 9 in core courses and 21 in elective courses; or 21 credits must be from ECE courses.

The required courses provide the basics of Internet Engineering. Electives are to be chosen from the available course pool to tailor the program to the student's professional needs and interests. This program utilizes graduate courses in Electrical and Computer Engineering, Computer and Information Science, Management Information Systems, and Management Programs at NJIT. They provide the necessary blend of education required for appropriate strength in Internet Engineering.

### M.S. in Internet Engineering (courses only)

#### Bridge Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 333</td>
<td>Signals and Systems</td>
</tr>
<tr>
<td>ECE 481</td>
<td>Digital Communications Systems</td>
</tr>
<tr>
<td>CS 505</td>
<td>Programming, Data Structures, and Algorithms</td>
</tr>
<tr>
<td>ECE 251</td>
<td>Digital Design</td>
</tr>
</tbody>
</table>

**Total Credits**: 12

1. Bridge courses are usually selected from this list, but some additional bridge courses, appropriate to each student's background, may be required.

#### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ECE 637</td>
<td>Internet and Higher-Layer Protocols</td>
</tr>
<tr>
<td>ECE 683</td>
<td>Computer Network Design and Analysis</td>
</tr>
<tr>
<td>CS 602</td>
<td>Java Programming</td>
</tr>
</tbody>
</table>

**Total Credits**: 12

#### Electives

Select seven of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ECE 673</td>
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<td>ECE 638</td>
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<tr>
<td>ECE 788</td>
<td>Selected Topics in Electrical and Computer Engineering</td>
</tr>
<tr>
<td>or ECE 789</td>
<td>Selected Topics in Electrical and Computer Engineering II</td>
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**Total Credits**: 21

### Seminar

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ECE 791</td>
<td>Graduate Seminar</td>
</tr>
</tbody>
</table>

**Total Credits**: 0

1. Other (new) courses related to Internet Engineering may be selected as electives with approval from the Graduate Advisor

2. Two semesters are required.

### M.S. in Internet Engineering (Master's project)

#### Bridge Courses

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ECE 333</td>
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<tr>
<td>ECE 481</td>
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</table>

**Total Credits**: 6

1. Three additional bridge courses, appropriate to each student's background, may be required.
### M.S. in Internet Engineering

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CS 505</td>
<td>Programming, Data Structures, and Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>ECE 251</td>
<td>Digital Design</td>
<td>3</td>
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**Total Credits**: 12

1. Bridge courses are usually selected from this list, but some additional bridge courses, appropriate to each student's background, may be required.

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<td>Java Programming</td>
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### Project

<table>
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<tr>
<th>Course</th>
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<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE 700</td>
<td>Master's Project</td>
<td>3</td>
</tr>
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### Electives

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### Seminar

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<th>Credits</th>
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<tbody>
<tr>
<td>ECE 791</td>
<td>Graduate Seminar</td>
<td>0</td>
</tr>
</tbody>
</table>

**Total Credits**: 30

1. Other (new) courses related to Internet Engineering may be selected as electives with approval from the Graduate Advisor

2. Two semesters are required.

### M.S. in Internet Engineering (Master's thesis)

#### Bridge Courses

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**Total Credits**: 12

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### Thesis

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</tr>
</thead>
<tbody>
<tr>
<td>ECE 701</td>
<td>Master's Thesis</td>
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