The objective of the Telecommunications Management Technology (TMT) program is to provide students with the skills required to work with, administer and manage telecommunications networks and systems. Graduates of this program will have the technical knowledge to design, implement and procure telecommunications networks and the management skills to maximize the financial returns on these systems. This program prepares the student for such careers as telecommunications manager, network administrator, telecommunications sales representative, e-commerce developer and customer support representative.

The coursework provides the technical background to understand the underlying network architecture, protocols, and technology with a special emphasis on case studies and industrial implementations. The benefit/cost analysis of these networks and their impact on the business environment is studied in depth. Students who wish to enter the program as a transfer student are typically students with A.A.S. in Electrical Engineering Technology, but can also have their A.S. in Business.

A maximum of 64 semester hour credits may be transferred into this program, and students need most of the following courses: Oral and Written Communications, Calculus I, Physical Science, Computer Programming Language and Applications, Social Science/Humanities, Physical Education, Telecommunications, Networking, Business and Finance. Students with less than 64 credits or with deficiencies in the above subject areas are considered on a case by case basis.

(131 credits)

<table>
<thead>
<tr>
<th>First Year</th>
<th>Term Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Semester</td>
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</tr>
<tr>
<td>MATH 138</td>
<td>General Calculus I</td>
</tr>
<tr>
<td>PHYS 102</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 102A</td>
<td>General Physics Laboratory</td>
</tr>
<tr>
<td>CS 101</td>
<td>Computer Programming and Problem Solving</td>
</tr>
<tr>
<td>HUM 101</td>
<td>English Composition: Writing, Speaking, Thinking I</td>
</tr>
<tr>
<td>IT 101</td>
<td>Introduction to Information Technology</td>
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<tr>
<td>ET 101</td>
<td>Introduction to Engineering Technology</td>
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<td>FRSH SEM</td>
<td>Freshman Seminar</td>
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<tr>
<th>2nd Semester</th>
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<tbody>
<tr>
<td>MATH 238</td>
<td>General Calculus II</td>
</tr>
<tr>
<td>PHYS 103</td>
<td>General Physics</td>
</tr>
<tr>
<td>PHYS 103A</td>
<td>General Physics Laboratory</td>
</tr>
<tr>
<td>MIS 245</td>
<td>Introduction to Management Information Systems</td>
</tr>
<tr>
<td>ECET 201</td>
<td>Circuits I</td>
</tr>
<tr>
<td>ACCT 115</td>
<td>Fundamentals of Financial Accounting</td>
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<tr>
<td>HUM 102</td>
<td>English Composition: Writing, Speaking, Thinking II</td>
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<table>
<thead>
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<th>Second Year</th>
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</thead>
<tbody>
<tr>
<td>1st Semester</td>
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</tr>
<tr>
<td>CS 113</td>
<td>Introduction to Computer Science</td>
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<tr>
<td>ECET 215</td>
<td>Introduction to Digital Electronics</td>
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<tr>
<td>HUM 211</td>
<td>The Pre-Modern World</td>
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<tr>
<td>HUM 212</td>
<td>The Modern World</td>
</tr>
<tr>
<td>HIST 213</td>
<td>The Twentieth-Century World</td>
</tr>
<tr>
<td>ACCT 117</td>
<td>Survey of Accounting</td>
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<td>IT 120</td>
<td>Introduction to Network Technology</td>
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<tr>
<td>Physical Education</td>
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<td><strong>Total Credits</strong></td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<tr>
<td>IT 420</td>
<td>Computer Systems and Networks</td>
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<tr>
<td>ECET 202</td>
<td>Circuits II</td>
</tr>
<tr>
<td>FIN 218</td>
<td>Financial Markets and Institutions</td>
</tr>
<tr>
<td>Physical Education</td>
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<tr>
<td>MIS 363</td>
<td>Project Management for Managers</td>
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</tbody>
</table>

**Term Credits**

| 18 |

**Humanities and Social Sciences (upper-level) GUR Elective**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>IT 420</td>
<td>Computer Systems and Networks</td>
<td>3</td>
</tr>
<tr>
<td>ECET 202</td>
<td>Circuits II</td>
<td>3</td>
</tr>
<tr>
<td>FIN 218</td>
<td>Financial Markets and Institutions</td>
<td>3</td>
</tr>
<tr>
<td>Physical Education</td>
<td></td>
<td>3</td>
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<tr>
<td>MIS 363</td>
<td>Project Management for Managers</td>
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**Term Credits**

| 18 |

**Third Year**

**1st Semester**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MGMT 390</td>
<td>Principles of Management</td>
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<tr>
<td>ECET 365</td>
<td>Digital Logic and Circuit Design</td>
<td>3</td>
</tr>
<tr>
<td>ENG 352</td>
<td>Technical Writing</td>
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</tr>
<tr>
<td>ECET 344</td>
<td>Numerical Computing for Engineering Technology</td>
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</tr>
<tr>
<td>MATH 305</td>
<td>Statistics for Technology</td>
<td>3</td>
</tr>
<tr>
<td>FIN 315</td>
<td>Fundamentals of Corporate Finance</td>
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**Term Credits**

| 18 |

**2nd Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ECET 415</td>
<td>Fundamentals of Telecommunications</td>
<td>3</td>
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<tr>
<td>ECET 214</td>
<td>Introduction to Communications</td>
<td>3</td>
</tr>
<tr>
<td>ECET 416</td>
<td>Networking Applications</td>
<td>3</td>
</tr>
<tr>
<td>MNET 414</td>
<td>Industrial Cost Analysis</td>
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<tr>
<td>Humanities and Social Sciences (upper-level) GUR Elective</td>
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<td></td>
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**Term Credits**

| 15 |

**Fourth Year**

**1st Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ECET 444</td>
<td>Technology Applications of Object-Oriented Programming</td>
<td>3</td>
</tr>
<tr>
<td>ECET 418</td>
<td>Transmission Systems</td>
<td>3</td>
</tr>
<tr>
<td>MGMT 480</td>
<td>Managing Technology and Innovation</td>
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<td>Humanities and Social Sciences (upper-level) GUR Elective</td>
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<tr>
<td>IT 430</td>
<td>Ethical Hacking for System Administrators</td>
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**Term Credits**

| 18 |

**2nd Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECET 418</td>
<td>Transmission Systems</td>
<td>3</td>
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<tr>
<td>Technical Elective</td>
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<tr>
<td>MRKT 330</td>
<td>Principles of Marketing</td>
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<tr>
<td>Capstone Seminar Humanities and Social Sciences (upper-level) Elective</td>
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<tr>
<td>ECET 493</td>
<td>Special Projects in ECET</td>
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<tr>
<td>3XX or 4XX Business/Management Elective</td>
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</tr>
</tbody>
</table>

**Term Credits**

| 18 |

**Electives**

**Open Elective in Humanities and Social Sciences (upper-level) GUR**

Select one of the following 300-level courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENG 3XX</td>
<td>English course</td>
<td></td>
</tr>
<tr>
<td>HIST 3XX</td>
<td>History course</td>
<td></td>
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<tr>
<td>LIT 3XX</td>
<td>Literature course</td>
<td></td>
</tr>
<tr>
<td>PHIL 3XX</td>
<td>Philosophy course</td>
<td></td>
</tr>
<tr>
<td>STS 3XX</td>
<td>Science, Technology and Society course</td>
<td></td>
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<tr>
<td>SS 3XX</td>
<td>Social Science course</td>
<td></td>
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<tr>
<td>THTR 3XX</td>
<td>Theater course</td>
<td></td>
</tr>
<tr>
<td>ARCH 382</td>
<td>History of Architecture IV</td>
<td></td>
</tr>
</tbody>
</table>
Approved 300-level course at Rutgers-Newark

### Humanities and Social Sciences (upper-level) GUR

Select one of the following 300-level courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIT 3XX</td>
<td>Literature course</td>
</tr>
<tr>
<td>HIST 3XX</td>
<td>History course</td>
</tr>
<tr>
<td>PHIL 3XX</td>
<td>Philosophy course</td>
</tr>
<tr>
<td>STS 3XX</td>
<td>Science, Technology and Society course</td>
</tr>
</tbody>
</table>

Approved 300-level course at Rutgers-Newark approved by the Humanities department

### Capstone Seminar in Humanities and Social Sciences (upper-level) GUR

Take one of the following. Honors College students take honors section:

- HSS 403 Humanities Senior Seminar - Literature
- HSS 404 Humanities Senior Seminar - History
- HSS 405 Humanities Senior Seminar - Philosophy
- HSS 406 Humanities Senior Seminar - English
- HSS 407 Humanities Senior Seminar - Theater
- HSS 408 Humanities Senior Seminar - Science, Technology, and Society
- HSS 409 Humanities Senior Seminar - Social Science

The department recommends telecommunications management technology option majors take ENG 352 Technical Writing to fulfill this requirement.

### Free Electives

Consult the program coordinator. Students transferring into this program with fewer than 9 credits in humanities/social science must take an appropriate humanities/social science course to fulfill the NJIT GUR.

### Economics/Management Electives

See the advisor.

### Marketing/Management Electives

Any 300- to 400-level MGMT or MRKT course.

### Technical Electives

Any 300-level or 400-level ECET or CIS course.