**MASTER OF SCIENCE IN TRANSPORTATION (MST)**

Master of Science in Transportation Program Description (http://catalog.mit.edu/interdisciplinary/graduate-programs/transportation)

A Master of Science degree at MIT requires a minimum of 66 units of graduate subjects, plus a thesis. The subject and thesis requirements for this program are described below.

**Subject Requirements**

**Core Subjects**

- 1.200[J] Transportation Systems Analysis: Performance and Optimization 12
- 1.201[J] Transportation Systems Analysis: Demand and Economics 12

**Individually Designed Program**

Select three subjects from the MST Program Areas, listed separately below. 18-21

Select one subject from the Policy and Technology Subjects, listed separately below. 9-12

**Computer Programming Requirement**

- 1.001 Engineering Computation and Data Science 2 12

Total Units 66

1 Requests to waive this requirement based on prior coursework must be submitted in writing to the Transportation Education Committee (TEC) executive director.

2 Recommended for most students. See the MST website (http://cee.mit.edu/graduate/transportation/degreerequirements) for information about acceptable substitutions.

**Thesis Requirement**

Students must complete a research-based thesis on a topic of their choice that has been approved by the thesis supervisor.

1.THG Graduate Thesis 24

**MST Program Areas**

Select from the subjects below to fulfill the Individually Designed Program Requirement.

**Air Transportation**

- 16.71[J] The Airline Industry 12
- 16.72 Air Traffic Control 12
- 16.75[J] Airline Management 12

- 16.781[J] Planning and Design of Airport Systems 12
- 16.886 Air Transportation Systems Architecting 12

**Analysis and Planning Methods**

- 1.202 Demand Modeling 12
- 1.205 Advanced Demand Modeling 12

**Data Sciences for Transportation**

- 6.268 Network Science and Models 1 12
- 11.205 Introduction to Spatial Analysis 6
- 15.060 Data, Models, and Decisions 9
- 15.077[J] Statistical Machine Learning and Data Science 12

**Intelligent Transportation Systems, Safety, and Security**

- 1.208 Resilient Networks 12
- 16.412[J] Cognitive Robotics 1 12
- 16.413[J] Principles of Autonomy and Decision Making 1 12
- 16.422 Human Supervisory Control of Automated Systems 1 12

- STS.487 Foundations of Information Policy 12

**Logistics and Supply Chain Management**

- 1.260[J] Logistics Systems 12
- 1.261[J] Case Studies in Logistics and Supply Chain Management 9
- 1.265[J] Global Supply Chain Management 6

- SCM.266 Freight Transportation 6

**Transportation Planning, Policy, and Sustainability**

- 2.65[J] Sustainable Energy 1 12
- 11.478 Behavior and Policy: Connections in Transportation 3 12
- 11.527 Advanced Seminar in Transportation Finance 12

- IDS.435[J] Law, Technology, and Public Policy 12

**Urban Transportation**

- 1.251[J] Comparative Land Use and Transportation Planning 3 12
1 Also satisfies the Technology requirement.
2 Special subjects offered by the Department of Urban Studies and Planning (Course 11) may satisfy this requirement if content satisfies MST criteria. Contact program office for available offerings.
3 Also satisfies the Policy requirement.

### Policy and Technology Subjects
Select from the subjects below to satisfy the Policy / Technology Requirement.

<table>
<thead>
<tr>
<th>Transportation Policy Subjects</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.478</td>
<td>Behavior and Policy: Connections in Transportation</td>
</tr>
</tbody>
</table>

### Transportation Subjects with Substantial Policy Content

| 11.526[J] | Comparative Land Use and Transportation Planning | 12 |
| 16.71[J]  | The Airline Industry | 12 |

### Policy Subjects with Modest or No Transportation Content

| 11.255 | Negotiation and Dispute Resolution in the Public Sector | 12 |
| 11.481[J] | Analyzing and Accounting for Regional Economic Change | 12 |
| 11.482[J] | Regional Socioeconomic Impact Analyses and Modeling | 12 |
| IDS.412[J] | Science, Technology, and Public Policy | 12 |
| IDS.435[J] | Law, Technology, and Public Policy | 12 |
| STS.487  | Foundations of Information Policy | 12 |

### Technology Subjects

| 2.65[J]  | Sustainable Energy | 12 |
| 6.268    | Network Science and Models | 12 |
| 16.422   | Human Supervisory Control of Automated Systems | 12 |
| 16.72    | Air Traffic Control | 12 |
| MAS.552[J] | City Science | 12 |
| MAS.836 | Sensor Technologies for Interactive Environments | 12 |

2 Special subjects offered by the Department of Urban Studies and Planning (Course 11) may satisfy this requirement if content satisfies MST criteria. Contact program office for available offerings.