# Master of Science in Informatics

# Two Year Curriculum Plan (30 credits)

**First Year Courses**

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| **Fall Semester** | **Courses** | **Credits** |
| **Required Foundation Course** | IST 504 – Foundations of Theories and Methods of Information Sciences and Technology | 3 |
| **Specialization Course** | Choose one of the specialization courses in an area of your choice | 3 |
| **Research Methods**  | Research Methods (choose from list) | 3 |
| **Total Semester Credits** | 9 |
| **Spring Semester** | **Courses** | **Credits** |
| **Specialization Course** | Choose one of the specialization courses in an area of your choice | 3 |
| **Specialization Course** | Choose one of the specialization courses in an area of your choice | 3 |
| **Research Methods**  | Research Methods (choose from list) | 3 |
| **Total Semester Credits** | 9 |

**Second Year Courses**

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| **Fall Semester** | **Courses** | **Credits** |
| **Specialization Course** | Choose one of the specialization courses in an area of your choice | 3 |
| **Specialization Course** | Choose one of the specialization courses in an area of your choice | 3 |
| **Thesis/Scholarly Paper** | IST 594/IST 600\*\* | 3 |
| **Total Semester Credits** | 9 |
| **Spring Semester** | **Courses** | **Credits** |
| **Thesis/Scholarly Paper** | IST 594/IST 600\*\* | 3 |
| **Total Semester Credits** | 3 |

* *At least 18 credits must be in the 500 or 600 series, combined.*
* ***Thesis Option:*** *Selecting the thesis option may require more than 1-year to complete.*
* *WC – World Campus, a maximum of 10 credits may be taken online*
* *Research Methods Course List* [*https://ist.psu.edu/sites/default/files/current-grad/methods-course-list.docx*](https://ist.psu.edu/sites/default/files/current-grad/methods-course-list.docx)

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| **Specialization Courses – These are the standard course offerings by area and the semester they are offered. Additional courses offerings are sent out each semester, please refer to the specific semester lists for the most up to date offering information.**  |
| **Cybersecurity Courses** | **Semester****Offered** | **Data Sciences Courses** | **Semester Offered** | **Human-Centered Design Courses** | **Semester****Offered** |
| IST 543: Foundations of Software Security | Spring | IST 557: Data Mining: Techniques and Applications | Fall | IST 520: Foundations in Human-Centered Design | Fall |
| IST 554: Network Management and Security | Spring | IST 558: Data Mining II | Spring | IST 521: Human-Computer Interaction: The User and Technology | Spring |
| IST 564: Crisis, Disaster and Risk Management | Spring | IST 597: Special Topics: Machine Learning | Spring | IST 525: Computer-Supported Cooperative Work | Spring |
| IST 815: Foundations of Information Security and Assurance | Fall | STAT 500: Applied Statistics | FallSpringSummer | IST 526: Development Tools and Visualizations for Human-Computer Interactions | Spring |
| IST 820: Cybersecurity Foundations | Spring |

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| **Scholarship and Research Integrity (SARI) Requirements** |  |
| Each student must complete the SARI training – prior to starting the program or by the end of August. | **Date completed & submitted to** **ISTgradprograms@psu.edu** |
| **Institutional Review Board (IRB) training** |  |
| **Responsible Conduct of Research (RCR) training** |  |

**\*\*Culminating Experience – Thesis or Scholarly paper (3-6 credits)**

Students may choose athesis or scholarly paper to fulfill the culminating experience.

**Thesis**

Students who choose the thesis option must register for 6 credits of IST 600 or IST 610, write a satisfactory thesis accepted by the master’s committee, the head of the graduate program, and the Graduate School, and pass a thesis defense. Selecting the thesis option may require more than 1-year to complete. Students who choose the thesis option must also complete IST 505.

**Scholarly Paper**

Students who choose the scholarly paper option must register for at least 3 credits of IST 594 and complete the scholarly paper. The scholarly paper will be a focused piece of technical work that applies the student’s expertise and knowledge base, and that is documented and presented as a scholarly paper report.