

M.S. Artificial Intelligence Engineering - Information Security

COURSE SEQUENCING FOR STANDARD, APPLIED, ADVANCED AND APPLIED ADVANCED STUDY OPTIONS

STANDARD STUDY OPTION – COURSE SEQUENCE

FALL 1 <i>39-45 units</i>	12 units	14-741 Introduction to Information Security OR INI Networking Core: <ul style="list-style-type: none"> 14-740 Fundamentals of Telecommunication Networks 14-760 Advanced Real-World Data Networks
	12 units	Systems and Tool Chains for AI Engineering
	12 units	Introduction to Machine Learning for Engineers
	3 units	14-601 Academic & Professional Development 1
	6 units	Elective*
SPRING 1 <i>42 units</i>	12 units	14-741 Introduction to Information Security OR INI Networking Core: <ul style="list-style-type: none"> 14-740 Fundamentals of Telecommunication Networks 14-760 Advanced Real-World Data Networks
	12 units	Trustworthy and Ethical AI Engineering
	6 units	Introduction to Deep Learning for Engineers
	12 units	Information Security Core** OR Elective*
FALL 2 <i>36-42 units</i>	12 units	New Course: AI Applications in Information Security
	6 units	New Course: AI in Business Modeling
	12 units	Information Security Core** OR Elective*
	6-12 units	Elective*
DEGREE TOTAL =		123 UNITS

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APPLIED STUDY OPTION – COURSE SEQUENCE

FALL 1 <i>39-45 units</i>	12 units	14-741 Introduction to Information Security OR INI Networking Core: <ul style="list-style-type: none"> 14-740 Fundamentals of Telecommunication Networks 14-760 Advanced Real-World Data Networks
	12 units	Systems and Tool Chains for AI Engineering
	12 units	Introduction to Machine Learning for Engineers
	3 units	14-601 Academic & Professional Development 1
	6 units	Elective*
SPRING 1 <i>45 units</i>	12 units	14-741 Introduction to Information Security OR INI Networking Core: <ul style="list-style-type: none"> 14-740 Fundamentals of Telecommunication Networks 14-760 Advanced Real-World Data Networks
	12 units	Trustworthy and Ethical AI Engineering
	6 units	Introduction to Deep Learning for Engineers
	3 units	14-602 Academic & Professional Development 2
	12 units	Information Security Core** OR Elective*
SUMMER <i>3 units</i>	3 units	INI Internship
FALL 2 <i>36-42 units</i>	12 units	New Course: AI Applications in Information Security
	6 units	New Course: AI in Business Modeling (<i>*possible to take in year 2</i>)
	12 units	Information Security Core** OR Elective*
	6-12 units	Elective*
DEGREE TOTAL =		129 UNITS

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ADVANCED STUDY OPTION – COURSE SEQUENCE

FALL 1 <i>39-45 units</i>	12 units	14-741 Introduction to Information Security OR INI Networking Core: <ul style="list-style-type: none"> 14-740 Fundamentals of Telecommunication Networks 14-760 Advanced Real-World Data Networks
	12 units	Systems and Tool Chains for AI Engineering
	12 units	Introduction to Machine Learning for Engineers
	3 units	14-601 Academic & Professional Development 1
	6 units	Elective*
SPRING 1 <i>42 units</i>	12 units	14-741 Introduction to Information Security OR INI Networking Core: <ul style="list-style-type: none"> 14-740 Fundamentals of Telecommunication Networks 14-760 Advanced Real-World Data Networks
	12 units	Trustworthy and Ethical AI Engineering
	6 units	Introduction to Deep Learning for Engineers
	12 units	Information Security Core** OR Elective*
FALL 2 <i>36-42 units</i>	12 units	New Course: AI Applications in Information Security
	6 units	New Course: AI in Business Modeling
	12 units	Information Security Core** OR Elective*
	6-12 units	Elective*
SPRING 2 <i>36 units</i>	36 units	Advanced Studies – Thesis or Project
DEGREE TOTAL =		157 UNITS

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APPLIED ADVANCED STUDY OPTION – COURSE SEQUENCE

FALL 1 <i>39-45 units</i>	12 units	14-741 Introduction to Information Security OR INI Networking Core: <ul style="list-style-type: none"> 14-740 Fundamentals of Telecommunication Networks 14-760 Advanced Real-World Data Networks
	12 units	Systems and Tool Chains for AI Engineering
	12 units	Introduction to Machine Learning for Engineers
	3 units	14-601 Academic & Professional Development 1
	6 units	Elective*
SPRING 1 <i>45 units</i>	12 units	14-741 Introduction to Information Security OR INI Networking Core: <ul style="list-style-type: none"> 14-740 Fundamentals of Telecommunication Networks 14-760 Advanced Real-World Data Networks
	12 units	Trustworthy and Ethical AI Engineering
	6 units	Introduction to Deep Learning for Engineers
	3 units	14-602 Academic & Professional Development 2
	12 units	Information Security Core** OR Elective*
SUMMER <i>3 units</i>	3 units	INI Internship
FALL 2 <i>36-42 units</i>	12 units	New Course: AI Applications in Information Security
	6 units	New Course: AI in Business Modeling
	12 units	Information Security Core** OR Elective*
	6-12 units	Elective*
SPRING 2 <i>36 units</i>	36 units	Advanced Studies – Thesis or Project
DEGREE TOTAL =		165 UNITS

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NOTES

* **Electives:** Fulfilled by courses in INI, Electrical and Computer Engineering (ECE), School of Computer Science (SCS), Engineering & Public Policy (EPP), Entertainment Technology Center (ETC) or Integrated Innovation Institute (III), and/or approved courses in the Heinz College or Tepper School. Some exceptions apply.

** **Information Security Core – Additional Security Core Options:**

- 14-684 Cyber Law and Ethics
- 14-735 Secure Coding
- 17-742 Security in Networked Systems
- 14-761 Applied Information Assurance
- 14-814 Wireless Security
- 14-817 Cyber Risk Modeling
- 14-819 Intro to Software Reverse-Engineering
- 14-822 Host Based Forensics
- 14-823 Network Forensics
- 14-828 Browser Security
- 14-829 Mobile & IoT Security
- 14-850 INSuRE Cybersecurity Research