

MSIN Degree Specific Core Course List

Note: Students should always register under the INI course number (14-XXX) if a course is cross-listed with other departments. The numbers for cross-listed courses are provided to the right of the course titles below. These courses are 12 units unless otherwise noted.

Please note: Course numbers and titles may change. If you notice such a change, please email ini-academic@andrew.cmu.edu prior to enrolling in a course.

- 10-601 Introduction to Machine Learning
- 10-605 Machine Learning with Large Datasets
- 10-701 Introduction to Machine Learning (PhD)
- 10-714 Deep Learning Systems: Algorithms and Implementation
- 11-642 Search Engines
- 11-663 Applied Machine Learning (cross-listed 05-834)
- 11-685 Introduction to Deep Learning
- 14-735 Secure Coding
- 14-741 Introduction to Information Security
- 14-742 Security in Networked Systems
- 14-744 Mobile and Embedded Software Design
- 14-757 Introduction to Machine Learning with Adversaries in Mind
- 14-760 Advanced Real-World Data Networks
- 14-795 AI Application in Information Security
- 14-819 Introduction to Software Reverse-Engineering
- 14-829 Mobile & IoT Security
- 14-848 Cloud Infrastructure and Services
- 15-605 Operating System Design and Implementation
- 15-611 Compiler Design
- 15-618 Parallel Computer Architecture and Programming
- 15-619 Cloud Computing
- 15-641 Networking and the Internet
- 15-642 Machine Learning Systems
- 15-645 Database Systems
- 15-712 Advanced Operating Systems and Distributed Systems
- 15-719 Advanced Cloud Computing (cross-listed 18-709)
- 15-740 Computer Architecture
- 15-744 Computer Networks

- 15-745 Optimizing Compilers for Modern Architectures
- 15-793 Secure Computer Systems
- 17-614 Formal Methods
- 17-715 Microarchitectural Security
- 18-645 How to Write Fast Code I
- 18-646 How to Write Fast Code II
- 18-648 Real-Time Embedded Systems
- 18-649 Distributed Embedded Systems
- 18-730 Introduction to Computer Security
- 18-731 Network Security
- 18-732 Secure Software Systems
- 18-740 Modern Computer Architecture and Design
- 18-746 Storage Systems (cross-listed 15-746)
- 18-750 Wireless Networks and Applications
- 18-756 Packet Switching and Computer Networks
- 18-758 Wireless Communications
- 18-845 Internet Services

VERSION TABLE

*Notates dates courses were added or removed from the list.

Date	ADDED/RE M OVED	COURSES
6-16-15	ADDED	10-601, 14-819, 15-611, 15-612, 15-615, 15-618, 15- 619, 15-640, 15-641, 15-740, 15-745, 18-645, 18- 740
9-14-16	ADDED	10-701, 15-719 18-749
1-25-17	ADDED	11-663, 15-605
8-7-17	ADDED	15-645
8-21-17	REMOVED	19-712, 19-713, 19-608, 14-817, 18-739A, 18-739C, 18-799K, 18-859, 18-859C, 18-859H, 18-859K, 18- 794, 18-798, 18-630, 14-827, 14-837
8-30-17	ADDED	14-848
12-13-17	REMOVED	15-640, 18-749, 18-842
10-25-18	ADDED	14-760

5-6-19	ADDED	18-651
8-10-21	REMOVED	14-841, 14-840, 15-641, 18-759
	ADDED	14-744, 18-750
7-1-22	REMOVED	14-814, 15-615, 15-839, 18-651
	ADDED	15-641, 10-605
5-22-23	ADDED	10-605, 11-642, 11-685, 14-757, 14-795, 14-742, 14 735
	REMOVED	15-612, 18-748, 18-757
5-31-24	ADDED	15-793
5-31-25	ADDED	15-642, 10-714, 17-715
5-31-26	ADDED	17-614, 18-646