Overlapping Courses

The INI discourages students from enrolling in courses that have overlapping content to the extent that students will not receive credit toward degree requirements for redundant courses; however, every course taken will be factored into the student's cumulative GPA.
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.

Specifically, the INI sets the following list of exclusions:

The following **security** courses are considered to be overlapping:
- 14-741 Introduction to Information Security
- 15-330/18-330 Introduction to Computer Security
- 18-730 Introduction to Computer Security
- 18-631 Introduction to Information Security
- Or, any of their cross-listed versions

The following **security** courses are considered to be overlapping:
- 14-788 Information Security Policy and Management
- 14-817 Cyber Risk Modeling
- Or, any of their cross-listed versions

The following **security** courses are considered to be overlapping:
- 14-817 Cyber Risk Modeling
- 14-782 Information Security Risk Management I
- Or, any of their cross-listed versions

The following **security** courses are considered to be overlapping:
- 14-742 Security in Networked Systems
- 18-731 Network Security
- Or, any of their cross-listed versions

The following **telecommunications** courses are considered to be overlapping:
- 14-740 Fundamentals of Telecommunications Networks
- 18-741 Computer Networks
- 15-641 Computer Networks
- Or, any of their cross-listed versions

The following **distributed systems** courses are considered to be overlapping:
- 15-640 Distributed Systems
- 18-749 Building Reliable Distributed Systems
- 14-736 Distributed Systems: Techniques, Infrastructure, and Services
- 18-845 Internet Services
- Or, any of their cross-listed versions

The following **systems** courses are considered overlapping:
- 15-513 Introduction to Computer Systems
- 18-613 Foundations of Computer Systems
- 14-513 Introduction to Computer Systems
- Or, any of their cross-listed versions

The following **systems** courses are considered to be overlapping:
- 18-349 Introduction to Embedded Systems
- 14-642 Introduction to Embedded Systems
- 18-648 Embedded Real-Time Systems
- Or, any of their cross-listed versions

The following **networking** courses are considered to be overlapping:
- 18-750 Wireless Networks and Applications
- 18-759 Wireless Networks
- Or, any of their cross-listed versions

The following **economics** courses are considered overlapping:
- 95-710 Economic Analysis
- 14-776 Fundamentals of Business and Management
- Or, any of their cross-listed versions

The following **database** courses are considered overlapping:
- 15-615 Database Applications
- 15-645 Database Systems
- Or, any of their cross-listed versions

The following **software architecture** courses are considered to be overlapping:
- 17-638 Engineering Embedded Systems
- 17-655 Architecture for Software Systems
- Or, any of their cross-listed versions

The following **software product** courses are considered to be overlapping:
- 49-750 Software Product Definition
- 49-752 Product Definition and Validation
- Or, any of their cross-listed versions

The following **software product** courses are considered to be overlapping:
- 49-751 Requirements Analysis
- 49-752 Product Definition and Validation
- Or, any of their cross-listed versions

The following **software management** courses are considered to be overlapping:
- 49-760 Foundations of Software Management
- 49-761 Elements of Software Management
- Or, any of their cross-listed versions

The following **machine learning** courses are considered to be overlapping:
- 10-601 Introduction to Machine Learning
- 10-701 Introduction to Machine Learning (PhD)
- 10-715 Advanced Introduction to Machine Learning (PhD)
- 14-757 Introduction to Machine Learning to Adversarial Machine Learning (formerly 14-811)
- 18-661 Introduction to Machine Learning for Engineers
- 24-787 Machine Learning and Artificial Intelligence for Engineers
- Or, any of their cross-listed versions

The following **machine learning** courses are considered to be overlapping:
- 11-663 Applied Machine Learning
- 49-781 Introduction to Machine Learning
- Or, any of their cross-listed versions

The following **cryptography** courses are considered to be overlapping:
- 18-733 Applied Cryptography
- 15-856 Introduction to Cryptography
- Or, any of their cross-listed versions

The following **cloud computing** courses are considered to be overlapping:
- 15-619 Cloud Computing
- 14-848 Cloud Infrastructure and Services
- Or, any of their cross-listed versions

The following **deep learning** courses are considered to be overlapping:
- 11-785/11-685 Introduction to Deep Learning and 24-789 Intermediate Deep Learning for Engineers
- 11-785/11-685 Introduction to Deep Learning and 24-788 Introduction to Deep Learning
- 18-780 Introduction to Deep Learning Part 1 and 18-786 Introduction to Deep Learning
- Or, any of their cross-listed versions

The above list is not exhaustive. It is the responsibility of the student to avoid taking courses with topics that overlap with any other courses on their schedule, or else risk losing credit for the redundant course(s). If a student has doubts over which courses are considered overlapping, the student should speak with their academic advisor and submit a petition if there is a possibility the courses may be overlapping.

Version Table Overlapping List
  *Notates dates course were added or removed from the Overlapping Courses List

Date posted	ADDED/REMOVED	COURSES
9-22-14	ADDED	14-817 and 18-859K; 14-774 and 95-710 and University of Hyogo Economic Analysis; 94-840 and 95-794; 95-813 and 95-703
4-1-15	ADDED	18-739L and 17-632
10-30-15	ADDED	17-639 and 17-653; 17-838 and 17-655; 49-750 and 49-752; 49-751 and 49-752; 49-760 and 49-761; 14-742 and 18-732
4-6-16	REMOVED	96-787 and 15-619; 15-600, 08-671, 08-672, 15-637; 15-637 and 08-724
10-3-16	ADDED	18-641 and 08-723; 11-663 and 10-601

	REMOVED	14-811 and 08-734
11-4-16	REMOVED	14-642 and 18-349 (starting S17 due to new cross list)
01-23-17	Consolidated Security list	Moved 19-601 up to first security list
	REMOVED	14-742 and 18-731
	ADDED	14-788 and 14-784
04-25-17	ADDED	10-701; 18-600 and 15-513
8-7-17	REMOVED	18-630
10-18-17	ADDED	14-736, 15-640, and 18-749
8-23-18	ADDED	15-615, 15-645; 15-513; 15-641; 14-776
	REMOVED	14-817, 18-859; 18-641, 08-723
1-24-19	ADDED	17-646
5-6-19	ADDED	95-882, 17-637
11-13-19	ADDED	10-715 and 18-661
8-17-20	ADDED	14-817 and 14-782; 14-817 and 14-788, 14-784; 17-682; 18-750 and 18-759
	REMOVED	11-663
1-12-22	ADDED	14-742 and 18-731
1-26-22	ADDED	18-349 and 14-642
7-1-22	ADDED	15-619 and 14-848; 11-663 and 49-781
	REMOVED	14-744 and University of Hyogo Economic Analysis course; 18-739 and 17-632;14-784; 90-802 and 95-841; 14-744; 15-349 and 08-761 and 19-601; 95-882; 17-646
1-2-23	ADDED	14-811
5-22-23	ADDED	11-785 and 24-788, 11-785 and 24-789, 18-648
5-22-23	REMOVED	95-840 (no longer offered) and 95-794, 17-653 and 17-639 (no longer offered), 17-682 (no longer offered) and 17-637, 14-757 (new number for 14-811)

5-31-24	ADDED	14-819 and 95-759, 14-741 and 18-631, 18-780 and 18-786, 18-845
5-31-25	REMOVED	14-819 and 95-759 (added to sequencing list)