Heinz College MSIT ONLINE Courses
TENTATIVE PROJECTED Schedule - Effective April 2023

This **tentative, projected** schedule is for planning purposes only and **subject to change without notice. The 95/94-### online courses <u>with Z in its section</u>** are specifically for Heinz College's MSIT program students. Some exceptions for other Heinz programs and MSIT students at the Rwanda campus will be considered. *(The other course #'s are from other departments for which we have secured permission for Heinz MSITs to enroll.)* See Carnegie Mellon University's official **Schedule of Classes (SOC)** for up-to-date course offerings:

https://enr-apps.as.cmu.edu/open/SOC/SOCServlet

FALL (F23 and beyond) - late August to early December (includes mini 1,2)

95-734 Z Managing Digital Business
95-758 Z Network and Internet Security *[Prereq: 95-752 or 18-631 or infosec work exp]*
94-891 A Lean Innovation Lab *(project-based class; formerly called Hacking for Defense/Homeland Security)*
15-619 A/B Cloud Computing *[NOTE: Course is <u>15</u> units; requires extensive programming & group work]*

FALL MINI-1 [M1: late August to mid-October]	**FALL MINI-2** [M2: mid-October to early December]
95794-Z1 Tech Startup I: Market Discovery	95808-Z2 IT Project Management
95796-Z1 Statistics for IT Managers	94842-Z2 Programming R for Analytics *[Prereq:95-796]*
95898-Z1 Intro to Python Programming	95748-Z2 Software and Security *[Prereq: 95-752]*
95874-Z1 Agile Methods (LIVE ON ZOOM)	**NEW in F23:** 95797-Z2 Data Warehousing *[Prereq: 95-703]*
95835-**A1** Time Series Forecasting w/ Python *[Prereq:95-796, ML class like 95-791/95-854]* (LIVE ON ZOOM)	95866-Z2 Adv Business Analytics *[Prereq:95-796, ML class like 95-791/95-854]*
	95799-Z2 Linux & Open Source
	95746-**A2** Cloud Security (LIVE ON ZOOM)
	NEW in F23: 95883-**A2** Ethical Penetration Testing *(limited remote seats, live on ZOOM)*

SPRING (S23 and beyond) - mid January to early May (includes mini 3, 4)

95-703 Z Database Management
95-807 Z Object Oriented Programming (Java) for Managers *[Prereq: undergrad level prog class or equiv work exp]*
NEW IN S24: 95-744 Z Cybersecurity Policy & Governance *(replaces 95744 Z3 & 95743 Z4)*
94-857 A Strategy & Mgmt of Tech Innovation *(cross-listed from 19-682, availability in remote determined by that dept.)*
94-891 A Lean Innovation Lab *(project-based class; formerly called Hacking for Defense/Homeland Security)*
15-619 A/B Cloud Computing *[NOTE: Course is <u>15</u> units; requires extensive programming & group work]*

SPRING MINI-3 [M3: mid-January to mid-March]	**SPRING MINI-4** [M4: mid-March to early May]
94806-Z3 Privacy in Digital Age *(add'l sec Y4 in S23 only)*	95722-Z4 Digital Transformation
S23 ONLY - moves to Summer in 2024: 95706-Z3 Object-oriented Analy & Des *[Prereq:95-807/95-712]*	95755-Z4 Info Security Risk Management
95888-Z3 Data-Focused Python	95865-Z4 Unstruct Data Analytics *[Prereq: 95-796, 95-888/95-898]*
S23 ONLY: 95884-Z3 Network Defense	95883-**A4** Ethical Penetration Testing *(limited remote seats)*
S23 ONLY: 95744-Z3 Cybersecurity Policy & Gov I	**S23 ONLY:** 95743-Z4 Cybersec Policy & Gov II *[Prereq: 95-744]*
	95746-**A4** Cloud Security (LIVE ON ZOOM)
94700-Z3 Org Design & Implementation (LIVE ON ZOOM)	94854-**A4** Developing as a Leader (LIVE ON ZOOM)
NEW EFF S23: 95854-Z3 ML with Tableau *[Prereq: 95-796]* (LIVE ZOOM; replaces 95791 Data Mining)	**ODD YRS:** 94881-Z4 Managing Analytic Projects (LIVE ON ZOOM) *[Prereq: Stats and one prog (R/Python/SAS) is expected]*
95835-**A3** Time Series Forecasting w/ Python *[Prereq:95-796, ML class like 95-791/95-854]* (LIVE ON ZOOM)	95835-**B4** Time Series Forecasting w/ Python *[Prereq:95-796, ML class like 95-791/95-854]* (LIVE ON ZOOM)

SUMMER (M23 and beyond) - late May to early August (includes mini 5, 6)

94-802 Z Geographic Information Systems *[database prereq for non-MSIT students]*
95-705 Z Telecommunications Management
95-752 Z Intro to Information Security Management

SUMMER MINI-5 [M5: late May to late June]	**SUMMER MINI-6** [M6: late June to early August]
91717-Z5 Bus Writing for Leaders (LIVE ON ZOOM)	91869-Z6 Conflict Resolution
95868-Z5 Exploring & Visualizing Data *[Prereg: 95-796]*	95710-Z6 Economic Analysis
95884-Z5 Network Defenses *[95-799 or linux exp suggested]*	95737-Z6 NoSQL Database Management *[Prereq: 95-703]*
95835-**A5** Time Series Forecasting w/ Python *[Prereq:95-796, ML class like 95-791]* (LIVE ON ZOOM)	95760-Z6 Decsn Making Under Uncertainty *[Prereq: 95-796]*
	95810-Z6 Blockchain Fundamentals (LIVE ON ZOOM)
EVEN YRS Starting M24: 95706-Z5 Obj-oriented Analy & Des *[Prereq:95-807/95-712]*	**NEW in M23:** 95797-Z6 Data Warehousing *[Prereq: 95-703]*
NEW! ODD YRS Starting M23: 95829-Z5 Software Design for Data Scientists *[Prior programming exp recommended]*	**EVEN YRS Starting M22:** 95759-Z6 Malicious Code (LIVE ON ZOOM)
NEW! ODD YRS Starting M23: 95812-Z5 Intro to ITIL Framework (LIVE ON ZOOM)	**NEW! ODD YRS Starting M23:** 95749-Z6 Cryptography

Course #	Course Title	Units	Prereq/Notes	Typically Offered	CORE: IT Mgt	CORE: InfoSec	CORE: BIDA
95-703	Database Management	12		Spring	☑		☑
95-705	Telecommunications Management	12		Summer	☑	☑	
95-706	Object Oriented Analysis & Design	6	95-807 or 95-712	Spring M3	☑		
95-710	Economic Analysis	6		Summer M6			☑
95-722	Digital Transformation	6		Spring M4			
95-734	Managing Digital Business	12		Fall	☑		
95-737	NoSQL Database Management	6	95-703	Summer M6			
95-743	Cybersecurity Policy & Governance II	6	95-744; one-time offering in Spr 2023	Spr M4 2023 only			
95-744	Cybersecurity Policy & Governance I	6	last time as a mini course in Spr 2023	Spring M3		☑	
95-744	Cybersecurity Policy & Governance *(12 unit version starting Spr 2024)*	12	**Starting Spring 2024,** 95-743 & 95-744 combine into one 12-unit course.	Spring		☑	
95-746	Cloud Security	6	LIVE ON ZOOM	Fall M2, Spr M4			
95-748	Software & Security	6	95-752; some prog experience suggested	Fall M2		☑	
95-749	Cryptography	6		Summer M6-ODD yrs only			
95-752	Intro to Info Security Management	12		Summer		☑	
95-755	Info Security Risk Management	6		Spring M4		☑	
95-758	Network & Internet Security	12	95-752 or infosec work exp	Fall		☑	
95-759	Malicious Code Analysis	6	LIVE ON ZOOM	Summer M6-EVEN yrs only			
95-760	Decision Making Under Uncertainty	6	95-796	Summer M6			
95-791	Data Mining *(replaced by 95-854 ML with Tableau starting Spring 2023)*	6	95-796 required; course or work exp in R prog is suggested	**Last online offering in Summer 2022**			☑
95-794	Tech Startup I: Market Discovery	6	LIVE ON ZOOM	Fall M1			
95-796	Statistics for IT Managers	6		Fall M1			☑
95-797	Data Warehousing	6	95-703 Returns in Sum23; LIVE ON ZOOM	Fall M2, Summer M6			☑
95-799	Linux & Open Source	6	See online description for soft prereqs.	Fall M2			
95-807	Object Oriented Programming for IT Managers	12	Undergrad level OOP in Java or C++ or equivalent work exp. Free online prep course at CMU's Open Learning Initiative.	Spring	☑		
95-808	IT Project Management	6		Fall M2	☑		
94-806	Privacy in the Digital Age	6		Spring M3		☑	☑
95-810	Blockchain Fundamentals	6	LIVE ON ZOOM	Summer M6			
95-812	Intro to ITIL Framework	6	LIVE ON ZOOM	NEW in Sum23 M5-ODD yrs			
95-829	Software Design for Data Scientists	6	prog course or exp recommended	NEW in Sum23 M5-ODD yrs			
95-835	Time Series Forecasting in Python	6	95-796, Python (95-898 or 95-888)	Fall M1/M2, Spr M3/M4			
95-854	Machine Learning with Tableau	6	95-796 New in Spr23; replaces 95-791 DM	Spr M3			☑
95-865	Unstructured Data Analytics	6	95-796, Python (95-898 or 95-888)	Spring M4			☑
95-866	Advanced Business Analytics	6	95-796, 95-791/95-854	Fall M2			☑
95-868	Exploring & Visualizing Data *(new title starting Sum23 Applied Exploratory Data Analysis)*	6	95-796 required; 94-842 or R prog exp suggested	Summer M5			☑
95-874	Agile Methods	6	LIVE ON ZOOM	Fall M1			

Heinz College MSIT Program
Current List of ONLINE Courses

Course #	Course Title	Units	Prereq/Notes	Typically Offered	CORE: IT Mgt	CORE: InfoSec	CORE: BIDA
94-881	Managing Analytics Projects	6	95-796 and exp with one analytics environ (e.g. R, Python, SAS); LIVE ON ZOOM	Spring M4-ODD yrs			
95-883	Ethical Penetration Testing	6	LIVE ON ZOOM	Fall M2, Spr M4			
95-884	Network Defenses	6	Recommend 95-799	Summer M5			
95-888	Data-Focused Python	6	One programming class or equiv exp	Spring M3			
95-898	Intro to Python Programming	6	Assumes some prior experience with prog	Fall M1			
94-700	Organizational Design & Implementation (ODI)	6	LIVE ON ZOOM	Spr M3-ODD yrs			
94-802	Geographic Information Systems	12	Database course required for non-MSITs	Summer			
94-842	Programming R for Analytics	6	95-796	Fall M2			
94-891	Lean Innovation Lab *(formerly Hacking for Defense)*	12	Team project-based	Fall, Spring			
ONLINE COURSES OFFERED BY OTHER CMU DEPARTMENTS:							
91-717	Business Writing for Leaders	6		Summer M5			
91-869	Conflict Resolution	6		Summer M6			
15-619	Cloud Computing *READ COURSE LINK CAREFULLY!*	**15**	**WARNING: Extensive prog, group work and time commitment!**	Fall, Spring			
19-682/ 94-857	Strategy & Mgmt of Tech Innovation	12	Online students should reg for the Remote section of 19-682, not 94-857.	Spring			
17-6xx	D sections of Master of Software Engineering online program courses		https://mse.isri.cmu.edu/applicants/mse-as-online/plan.html				
17-7xx	B sections of MSIT-Privacy Engineering online program courses		https://privacy.cs.cmu.edu/masters/plan/index.html				
	Search for other Remote delivery courses on the University Schedule of Classes		https://enr-apps.as.cmu.edu/open/SOC/SOCServlet				