# **MSIT-MOB Degree-Specific Core Courses**

This list provides MSIT-MOB degree specific core courses that have been approved by the department. This list is for those students enrolled before Fall 2020.

The INI cannot guarantee that courses will be offered each semester or in a specific semester as advertised below. Likewise, the location listed is not guaranteed as campus course offerings constantly change. Students must refer to the 'Schedule of Classes' to determine course availability. In addition, the INI cannot guarantee that a student will be offered a seat in a specific course. These apply to courses at the INI as well as other departments at Carnegie Mellon.

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.

Please note: Course numbers and titles may change. If you notice such a change, please let the INI AAO know prior to enrolling in a course.

#### Spring

05-670 Digital Service Innovation (PIT, 12 units)

05-833 Gadgets, Sensors & Activity Recognition in HCI (PIT, 12 units)

05-872 Rapid Prototyping of Computer Systems (PIT, 12 units, cross-listed 05-540, 18-745, 18-540, 39-648)

08-735 Building User-focused Sensing Systems (PIT, 12 units)

14-642 Fundamentals of Embedded Systems (PIT, 12 units)

14-736 Distributed Systems: Techniques, Infrastructure and Services (PIT & Broadcast to SV, 12 units)

14-760 Advanced Real-World Data Networks (PIT & Broadcast to SV, 12 units)

14-841 Mobile & Pervasive Computing (SV, 12 units) (cross-listed 18-843)

15-619 Cloud Computing (PIT & Broadcast to SV, 12 units)

17-637 Web Application Development (PIT, 12 units)

15-640 Distributed Systems (PIT, 12 units)

15-719 Advanced Cloud Computing (PIT, 12 units) (cross-listed 18-709)

17-681 Java for Application Programmer (PIT, 6 units)

17-781 Mobile and IoT Computing Services (PIT, 12 units)

18-651 Networked Cyber-Physical Systems (PIT, 12 units)

18-744 Connected Embedded Systems Architecture (SV, 12 units)

18-748 Wireless Sensor Networks (PIT, 12 units)

18-759 Wireless Networks (PIT, 12 units)

18-845 Internet Services (PIT, 12 units)

49-780 Human Computer Interaction and User Experience (SV, 12 units) 49-788 Mobile Apps for the Internet of Things (SV, 12 units)

#### Summer

08-723 Mobile Application Development for iOS and Android (PIT, 6 units) 49-788 Mobile Apps for the Internet of Things (SV, 12 units)

#### Fall

05-670 Digital Service Innovation (PIT, 12 units)

05-863 Introduction to Human-Computer Interaction for Technology Executives (PIT, 6 units) (cross-listed 45-888)

05-833 Gadgets, Sensors & Activity Recognition in HCI (PIT, 12 units)

08-736 Pervasive and Ubiquitous Computing (PIT, 12 units)

14-642 Fundamentals of Embedded Systems (PIT, 12 units)

14-829 Mobile and IoT Security (SV & Broadcast to PIT, 12 units)(cross-listed 18-638)

14-840 Mobile Hardware for Software Engineers (SV, 12 units) (cross-listed 18-644)

14-848 Cloud Infrastructure: Design, Analysis and Implementation (PIT & Broadcast to SV, 12 units)

15-619 Cloud Computing (PIT & Broadcast to SV, 12 units)

14-841 Mobile & Pervasive Computing (SV, 12 units) (cross-listed 18-843)

15-624 Logical Foundations of Cyber-Physical Systems (PIT, 12 units)

15-640 Distributed Systems (PIT, 12 units)

16-722 Sensing and Sensors (PIT, 12 units)

17-637 Web Application Development (PIT, 12 units)

17-681 Java for Application Programmer (PIT, 6 units)

17-728 Machine Learning and Sensing (PIT, 12 units)

18-661 Introduction to Machine Learning for Engineers (SV & PIT, 12 units)

18-740 Modern Computer Architecture and Design (SV & PIT, 12 units)

18-747 Wireless Device Architecture (SV, 12 units)

18-749 Building Reliable Systems (PIT, 12 units)

18-847 Special Topics in Computer Systems (PIT & SV, 12 units) (Fall 2019 only)

49-780 Human Computer Interaction and User Experience (SV, 12 units)

PIT: CMU Campus in Pittsburgh, PA SV: CMU Campus in Silicon Valley, CA

When enrolled in courses that are broadcasted students at both locations attend the classes synchronously.

### **VERSION TABLE**

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

VERSION	ADDED/	COURSES
Date posted	REMOVED	
<b>1.0</b> 7-9-14	ADDED	17-653, 18-654, 18-655, 94-808, 05-872, 15-619, 05- 863
<b>2.0</b> 1-22-15	ADDED	05-863
<b>3.0</b> 4-28-15	ADDED	14-809, 14-837, 14-837, 49-772, 15-637
<b>4.0</b> 4-30-15	ADDED	49-752, 49-760
<b>5.0</b> 2-10-16	ADDED	49-804
<b>6.0</b> 9-14-16	ADDED	14-850, 14-642, 15-619, 18-749, 16-623, 18-697, 08- 571, 49-767
	REMOVED	• MSIT-IS: 19-635
		• MSIT-MOB: 08-600
<b>7.0</b> 1-23-17	ADDED	• MIST-MOB: 05-670
<b>8.0</b> 1-25-17	ADDED	• MIST-IS: 14-828
		• MIST-MOB: 49-788
<b>9.0</b> 8-7-17	ADDED	• MSIT-IS: 15-811,18-632
		• MSIT-MOB: 08-735, 15-719, 18-647
<b>10.0</b> 8-30-17	ADDED	• MSIT-MOB: 18-747
	REMOVED	• MSIT-IS: 14-817, 14-846, 14-847
		• MSIT-MOB: 14-839, 14-837, 14-836, 05-899, 96-811
11.0 8-23-18	ADDED	<ul> <li>MSIT-MOB: 49-780, 14-736, 08-736, 14-848, 05-670</li> <li>MSIT-IS: 95-883</li> </ul>
12.0 5-6-19	ADDED	<ul> <li>MIST-MOB: 18-740, 18-847 (Fall 19 only), 18-744, 14-760, 15-624, 16-722, 17-728, 17-781, 18-651, 18-661</li> <li>MSIT-IS: 18-737 (Fall 19 only), 19-733</li> </ul>

## Last Updated May 6, 2019

REMOVED	• MSIT-MOB: 18-647, 08-766, 08-769, 08-781, 14-837, 17-619, 18-549, 18-842, 16-623, 18-
	697