**COMPUTER ENGINEERING MASTER OF SCIENCE DEGREE PROGRAM CHECKLIST, Updated May, 2019**
**COLUMBIA UNIVERSITY**

**Student:** _____

(please print)
**UNI:** _____

| **Courses** | **Pts.** |
|---|---|

**CHECKLIST**

(Core courses)

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1. _____30 points of credit

2. _____15 points core Computer Engineering (see back)

3. _____12 points 6000 level EE or CS courses (including joint courses)

4. _____Advisor approval for all courses from outside SEAS

5. _____no credit for 3000 or lower level courses

6. _____2.7 GPA minimum

(Other courses, approved by an advisor)

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**Total points:**

7. _____no more than 9 points research (e.g. ELEN E4998, ELEN E6001, COMS W4901)

8. _____no more than 3 points of APPROVED nontechnical courses (including courses in SEAS with significant nontechnical content)

9. _____completion within 5 years

10. _____no grade of P or R

11. _____no credit for courses with material typically found in undergraduate engineering programs such as a 4000-level course in Probability

**Approved:**

_____

for the Department                     for the Dean

_____

Date:                                         Date:

Note: If some courses listed were taken during the BS, a copy of an approved BS excess sheet must be attached

| Core MS Computer Engineering Courses as of 2019* | | | | | |
|------|-------|-------------------------------------------|------|-------|-------------------------------------------|
| CSEE | W4119 | Computer networks | CSEE | E6180 | Modeling and performance evaluation |
| CSEE | W4140 | Networking laboratory | EECS | E6321 | Advanced digital electronic circuits |
| EECS | E4321 | Digital VLSI circuits | EECS | E6322 | VLSI Hardware Architecture for Signal |
| EECS | E4750 | Hybrid Computing for Signal & Data Processing | COMS | E6424 | Hardware Security |
| EECS | E4764 | Internet of Things – Intelligent & Connected Systems | EECS | E6765 | Internet of Things - Systems & Physical Data Analytics |
| CSEE | W4823 | Advanced logic design | CSEE | E6824 | Parallel computer architecture |
| CSEE | W4824 | Computer architecture | CSEE | E6861 | Computer-aided design of digital systems |
| CSEE | W4840 | Embedded systems | CSEE | E6863 | Formal Verification of Hardware & Software Systems |
| CSEE | W4868 | System-on-chip Platforms | CSEE | E6868 | Embedded scalable platforms |
| EECS | E4951 | Wireless Networks & Systems | | | |

*a few additional courses that can be considered core may be announced each year depending on offerings

Updated May, 2019