

TSA Information for Microelectronics Technology

Today's Date: **May 13, 2020**

SAC Prefix and Name: **MT – Microelectronics Technology**

Name of faculty member responsible for TSA reporting: **Shelton Fu, SAC Chair**

Description of TSA(s) in 300 words or less: The TSA assessment used by the Microelectronics Technology (MT) SAC is the PORTFOLIO type. The two main pieces of the portfolio are:

1. The paper exam on electronics, focused on critical thinking and troubleshooting electric circuits at the component level. This exam is administered to the MT students at the end of the first year in the program, and is cumulative over concepts learned in a total of 5 different electronics courses taken that year. This part of the portfolio will generate one score for the student, for let's call it ASSESSMENT 1.

2. The practical exam focused on troubleshooting a real cleanroom piece of equipment AKA the Lam Etcher as part of the capstone course of the MT curriculum, MT 228. This practical exam is focused on assessing the skills in troubleshooting complex systems, specific to the semiconductor industry for which the graduates are prepared for. The exam is administered to all the MT students at the end of the two-year program. Let's call this part of the portfolio ASSESSMENT 2.

The overall 'grade' on this portfolio will therefore consist of two partial 'scores', for ASSESSMENT 1 and ASSESSMENT 2. The students will be considered successful if they receive an M (meet the expectations) for each independent assessment.

Maximum score possible: ASSESSMENT 1-MAX score 45; ASSESSMENT 2-done based on the detailed rubric and instructor observations during the practical exam, the student receives directly an M (for meet expectations) or N (not meet expectations).

Benchmark score (score that "meets expectations" for completing students): ASSESSMENT 1-benchmark 25; ASSESSMENT 2-rubric can be made available for clarification about the benchmark used as embedded in the details of the assessment rubric.

Clarifying notes: *The TSA overall expectations are met (overall M) if students receive an M on each of the two exams/assessments described above.*

Traditionally, the grade on the practical examination are finalized a few weeks after the end of the spring term, due to a very detailed type of assessment that is always done in that capstone course. The contact person remains this year Shelton Fu, the MT SAC chair.

CIP Code	Test Name	Test Type
150613	2AREG028	PORTLOC