

Advanced Manufacturing & Industrial AI Qualifying Examination Procedures and Policies

(Effective starting Fall 2025 Qualifying Exams)

1. Exam format

- The examination will be four hours long.
- There will be five questions in all. **Students must select four among these five questions to answer.**
- The exam is open book and open notes. The students can bring any relevant written materials.
- No computer and internet access are allowed.
- Calculator is allowed.

2. Reading list

- The examination will be based primarily on subject matter that is covered in the following courses (as defined in the course syllabus during the last offering of the course prior to the date of the qualifier examination):

ISyE510, ISyE512, ISyE605, ISyE643*, ISyE645**

Students are advised to obtain the course syllabus for each course from the instructor who last taught the course prior to the date of the qualifying examination.

*In case ISyE 643 is not offered in the academic year prior to the date of the qualifying examination, ISyE 624 will be a substitute course for ISyE 643.

**In case ISyE 645 is not offered in the academic year prior to the date of the qualifying examination, ISyE 604 Supply Chain Modeling: Logistics will be a substitute course for ISyE 645.

- It is also assumed that students have background knowledge in the subject matter covered in the following courses:

ISyE313, ISyE315, ISyE320, ISyE323, ISyE415

- It is not the intention of the examining committee that the students take all the courses listed above. The lists of courses are meant to be indicative of the subject matter in which the student is expected to be knowledgeable.

3. Problem distribution

- 1 question from ISyE 510
- 1 question from ISyE 512
- 1 question from ISyE 605
- 1 question from ISyE 643*
- 1 question from ISyE 645**

*In case ISyE 643 is not offered in the academic year prior to the date of the qualifying

examination, 1 question will be from ISyE 624

****In case ISyE 645 is not offered in the academic year prior to the date of the qualifying examination, 1 question will be from ISyE 604 Supply Chain Modeling: Logistics.**

4. Coordinator

- Professor Kaibo Liu