EEEN19680 Supplementary Maths
(nee Engineering Mathematics)

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Comparison between lectures from Math and ones from EEE

Contents for the first semester

topic	EEEN19680	MATH19681
Vector	5 sessions	5 sessions
Coordinate	5 sessions	5 sessions
Complex numbers	6 sessions	6 sessions
Differentiation	4 sessions	3 sessions
Integral	4 sessions	4 sessions

Focus in EEEN19680

- Acquire the techniques/skills to solve problems
- Get used to a variety of problems
- Learn how to write answers

$\Longrightarrow$ Each session is the practice of the exams!

Quality and Quantity of materials

Level of the questions

1. **Supposed to be about 1-2 sessions ahead of MATH19681**
2. **From the fundamental level to 1st Class level and beyond**
3. **Explained well enough for the prerequisite level to understand**

Volume of the questions

1. **Too much to solve all in one session**
2. **Useful to take a look at even when not dealt with in the lecture**

The handout

At the first lecture of the year

- **A booklet on the prerequisite information and the key notes for Year 1 mathematics**

At each lecture

- **Question of the day**
- **Answers for all the questions for the day**

The handouts are all uploaded at `https://online.manchester.ac.uk/webapps/blackboard/content/listContentEditable.jsp?content_id=_4709464_1&course_id=_43654_1`
which is accessible to *all* Year 1 students and the answers for the 2 sessions in a week are uploaded around 11:30 on Fridays.

The structure of each lecture

In the lecture

- 5 mins **Explanation of today's key points**
- 10 mins **Fumie's demonstration of solutions of today's representative question(s)**
- 25 mins **Question and Answer time**
  - **try out "today's questions" with the people around you**
  - **ask us about**
    - **"last session's questions"**
    - **"today's questions"**
- 10 mins **Fumie's demonstration of solutions of the questions which many students find difficult**
- 0 min **Distribution of the answers to today's questions**

The structure of each lecture

After the lecture

1. **Solve the rest of "today's questions"**
   1. **Plan the procedure to solve the question for *3 minutes***
   2. **Write down the procedure you produced. Only if you are confident on your procedure, keep solving the question.**
   3. **Read worked-out answers provided, comparing with your procedure**
2. **Identify the problems you faced in the answers**
3. **List them up to take with you and ask us at the next session**
4. **Repeat "plan the procedure" and "read answers" till you can build the correct plan**

Others

Expected attitude during the session: Listen to Fumie *ideally without* taking any notes

Taking photos/videos of the white board is better than copying down from the white board because it

- **is quicker than copying down from the whiteboard by hand**
- **saves you from mis-copying down**
- **gives you opportunities**
  - **to deepen your friendship by sharing photos/videos with your colleagues**
  - **to concentrate Fumie's demonstrations**

Don't worry about asking us any/many/the same questions. We are happy to answer any of your questions.

Others

Attendance

- At each session, we take your signature
- Four successive absences or four absences in one semester will trigger the School to take an action on you
- Drop a line to fumie.costen@manchester.ac.uk prior to lectures if you have problems to attend
  - Illness ?
  - Visa issue ?
  - Not accepted excuse: busy for other modules' course work $\Rightarrow$ down to your time-management
- Those who are not chosen for this module
  - you are more than welcome to attend the session. Just let us know who you are by dropping a line to fumie.costen@manchester.ac.uk.
  - please do not add your name on the attendance sheet. Just pass it to the next person.

Individual tutorial sessions

1. one-to-one or one-to-two sessions
2. go through step-by-step to identify your weak points
3. materials
   - lectures
   - past exam papers and their solutions $\leftarrow$ not allowed to photocopy them or to take them outside the individual sessions
4. run by students' request $\rightarrow$ contact us.

Others

Past papers

1. upto 2 sessions toward the end of each semester
2. first 20 minutes for your attempt
3. going through the tricky part together
4. checking how the marking is carried out
5. handout of the detailed answers at the end of each session (not uploaded to the blackboard)

Vectors

Coordinates

Complex Numbers

Differentiation

Integration

Sequences and Series

Ordinary Differential Equations