

## B4.1 Functional Analysis 1

There will be in total 12 hours of revision classes, some taught by Stuart White, others by Melanie Rupflin. You will find the information for both of these sessions below:

### Revision classes of Melanie Rupflin (all in L4)

Several of my session will be have one main topic and the majority of the time will be spent going through past exam questions on this topic or answering any other questions on this topic. I have listed some proposed questions to discuss below, but you are welcome to send in further questions that you would like to see covered by email. Please send such emails no later than 24 hours before the class directly to me ([rupflin@maths.ox.ac.uk](mailto:rupflin@maths.ox.ac.uk)) and specify precisely which part of which question you would like to see discussed or what question on the theory you would like to have answered.

In addition, there is a session which will focus on more basic material and is also an opportunity to ask any questions on material from the lecture notes that you would like to see explained again (again, preference will be given to any questions sent in by email), a hour where we will discuss questions from any topic that is of interest and the last sessions which will focus on last years exams.

- Tuesday W2 10-11: Recap of basic material and discussion of any sent in questions on bookwork proofs, or variations of such bookwork proofs.
- Tuesday W2 11-12: Normed spaces and linear operators and related past exam questions such as 2016 Q1, 2015 Q1 (ii)-(iv), 2012 Q 1 (b), 2016 Q3 and sent in questions
- Thursday W2 10-11: Hahn-Banach and related past exam questions such as 2014 Q2(d), 2015 Q2, 2016 Q2(c) and sent in questions
- Thursday W2 11-12: Density and Stone Weierstrass, dual spaces and second duals and related past exam questions such as 2020 Q3(b), 2013 Q 2 (b), 2014 Q3 (b), 2016 Q2 (d)
- Thursday W3 10-11: Spectral Theory and related past exam questions such as 2015 Q3, 2012 Q3

- Thursday W3 11-12: Questions on any topic
- Thursday W5, 10-12: Last years exam

### **Information for revision classes of Stuart White**

My revision classes will focus on past exam papers rather than individual topics. I will cover the 2017 B4.1 paper for which solutions are not online, and some other questions which aren't on the list for Melanie Rupflin's classes. Solutions for the 2018, 2019 and 2020 papers are available through the department website - I have allocated time to answering any of your queries on the 2018, 19 and 20 exams. Please send precise questions specifying the part of the question you'd like me to go over by email no later than 24 hours before the class (white@maths.ox.ac.uk).

- Monday W3 10-11 (L6) 2012 Q2, 2013 Q3
- Friday W3 10-11 (L6) 2017 Q1, questions sent in from 2018 paper
- Monday W5 10-11 (L3), 2017 Q2 questions sent in from 2019 paper
- Tuesday W5 10-11 (L5) 2017 Q3 questions sent in from 2020 paper

Good luck.  
MR, SW TT22