

MA30041: Metric Spaces

INFORMATION

Lecturer: Bernd Sing

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Organisation

Lecture: Mon 17:15 – 19:05, 2East 3.1

Exercise session: Fri 9:15 – 10:05, 2East 3.1

Drop-in: Tue 11:15 – 12:05, 3WN 2.1

Weekly exercise sheets: Mon → Mon

Web: <http://www.maths.bath.ac.uk/~bs259/ma30041/>

Moodle: Access key (if necessary) will be ma30041

There will also be ‘self-assessment sheets’.

Content

- I. Definition & Examples
- II. Sequences and completions
- III. Topology
- IV. Continuity
- V. Contractions
- VI. Compact sets
- VII. Connected sets

Literature

- S. Shirali & H.L. Vasudeva : Metric Spaces; Springer (2006); library: ebook

Note: The library has purchased a number of Springer ebook collections. You can access the titles either via the library catalogue or directly from SpringerLink at: <http://www.springerlink.com/home/main.mpx>. There will be a link from the course webpage to the textbooks.

However, note, that when it comes to printing off you still need to abide by copyright law. Do not download/print the whole book, because if you do our access may be terminated. Each time you need to read a section you can access it via the catalogue or SpringerLink. One can print off a chapter or 5% (whichever is larger) if one needs to.

- M. Ó Searcóid : Metric Spaces; Springer (2007); library: 516.112.8 OSE & ebook
- W.A. Sutherland : An Introduction to Metric and Topological Spaces; Oxford University Press (1975); library: 513.22 SUT
- P.K. Jain & K. Ahmad : Metric Spaces; Narose (2004); library: 516.112.8 JAI
- E.T. Copson : Metric Spaces; Cambridge University Press (1972); library: 516.112.8 COP

You will normally find a section on metrics in any book on “Functional Analysis” in the library, e.g., S. Lang : Real and Functional Analysis (library: 513 LAN).

Remarks

- If something is unclear, ask for clarifications!
(I don't want to read a comment in the evaluation like I found the section XY confusing and would have preferred more time spent on that. when nobody asked a question on XY!)
- If you cannot read something on the blackboard or OHP or if I talk too quietly, tell me!
(Again, the end-of-semester evaluation is the wrong place for me to find things like that out.)
- Please, attempt the exercises and hand them in even when you are stuck!
(This gives me a chance to see how much is understood!)