

Real Analysis, Unit 1 Plan, F2022

| Tues | Thurs |
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| August 16, 2022 | August 18, 2022 |
| | Intro to Course; Preview 1.1-1.4 Intro to Real Numbers In class today: • D 1.1-1.4 (if time allows) |
| August 23, 2022 | August 25, 2022 |
| 1.1-1.4 Intro to Real Numbers (as needed) 1.5-1.6 Bounds; Sups and Infs Due today: • Read 1.1-1.6, RQ 1.1-6 • D 1.1-1.4 (as needed), D 1.5-1.6 • Read 1.7-1.8, RQ 1.7-1.8 | 1.7-1.8 Archimedean Property of R, Inductive Property of N Due today: • W 1.4* • D 1.7-1.8 • Read 1.9-1.10, RQ 1.9-1.10 |
| August 30, 2022 | September 1, 2022 |
| 1.9-1.10 Density of Rationals, Metric Structure Quiz 1 (Sups and Infs) Due today: • , W 1.5-1.6, W 1.7-1.8 • D 1.9-1.10 • Read 2.1-2.3; RQ 2.1-2.3 | 2.1-2.3 Sequences and Countable Sets Due today: • W 1.9-1.10 • D 2.1-2.3 • Read 2.4; RQ 2.4 |
| September 6, 2022 | September 8, 2022 |
| 2.4-I Convergence (Intro.) Due today: • W 2.1-2.3 • D 2.4-I | 2.4-II Convergence (Cont.) Quiz 2 (Convergence) Due today: • W 2.4-I • D 2.4-II • Read 2.5; RQ 2.5 |
| September 13, 2022 | September 15, 2022 |
| 2.5 Divergence Due today: • W 2.4-II • D 2.5 • Read 2.6-7, RQ 2.6-7 | 2.6-2.7 Boundedness; Algebra of Limits Due today: • W 2.5 • D 2.6-2.7 • Read 2.8-2.9, RQ 2.8-2.9 |
| September 20, 2022 | September 22, 2022 |
| Exam 1 <i>Exam 1 covers 1.1-2.4.</i> | 2.8-2.9 Order Properties; Monotone Criterion Due today: • W 2.6-2.7 • D 2.8-2.9 • Read 2.10-2.11, RQ 2.10-2.11 |

*An asterisk next to a problem indicates that I have modified the problem or provided a hint. (A problem in parentheses is a challenge problem. Make sure you understand the other problems before attempting the challenge problems.)