

ELEC 3224 Guidance Navigation and Control —

Professor Eric Rogers

The following topics will be covered in the lectures. For each one you will only find the notes at <https://secure.ecs.soton.ac.uk/notes/elec3224/NotesER/>. Each set of notes is in the form of a pdf file.

Note: Part of this module will be delivered by Professor Daniel Clark — the corresponding notes will be supplied separately

1. Introduction (1.pdf)
2. Space Systems Example (2.pdf)
3. Frequency Domain Control Design Part 1 (3.pdf)
4. Frequency Domain Control Design (4.pdf)
5. Frequency Domain Control Design (5.pdf)
6. State Space Basics (6.pdf)
7. Random Processes (7.pdf)
8. Kalman Filtering (8.pdf)
9. GNC Introduction (9.pdf)
10. Guidance Systems (10.pdf)
11. UAV Guidance (11.pdf)
12. Ballistic Dynamics (12.pdf)
13. Complementary Filtering (13.pdf)
14. Proportional Navigation (14.pdf)
15. Beam Rider and CLOS (15.pdf)
16. Homing Guidance (16.pdf)