Course Plan FYS 3003 Spring 2023

Björn Gustavsson

January 18, 2023

1 Lecture plan

This course plan is rather tentative, and shifts will occur. This is for a start due to the fact that it doesn't really align with last years record.

Plain chapter-section numbers refer to chapters and sections in "Physics of the Upper Polar Atmosphere" by Brekke. A-n-A refers to the "Aurora and Airglow" manuscript, Rees Ch. 2 refers to chapter two in the book "Physics and chemistry of the upper atmosphere" by M. H. Rees, these documents will be made available on Canvas. The Aurora and Airglow manuscript is a work in progress so it will also be updated during the spring and the version on Canvas will be updated too.

Week 3

- 16.01.2023 Lecture: 2.1, 2.2, 2.4 (1st half), ✓20230116
- 17.01.2023 Lecture: 2.4, 1.5, ✓20230117
- 18.01.2023 Lecture: 1.5, 2.6, 2.7, ✓20230118

Week 4

- 23.01.2023 Lecture: Rees Ch. 2, 4.1
- 24.01.2023 Lecture: Rees Ch. 2
- 25.01.2023 Exercise: Programming task 2, and exercise

Week 5

- 30.01.2023 Lecture: Rees Ch 2, 4.2, 4.3
- 31.01.2023 Lecture: 4.4, 4.5,
- 01.02.2023 Lecture: 4.9, 4.10

Week 6

- 07.02.2023 Lecture: 4.11
- 08.02.2023 Exercise: Q-n-Advice: Programming tasks 3, 4 and 5

Week 7

- 13.02.2023 Lecture: 2.8, 4.6
- 14.02.2023 Lecture: 4.6, 4.7
- 15.02.2023 Lecture: 3.1, 3.2, 3.4, 3.7

Week 8

- 20.02.2023 Lecture: 3.3, 3.5, 3.9
- 21.02.2023 Lecture: A-n-A: Auroral Spectra
- 22.02.2023 Exercise: Q-n-Advice: Programming tasks

Week 9

- 27.02.2023 Lecture: A-n-A: Electron transport and Excitation
- 28.02.2023 Lecture: Emissions altitude and time variations
- 01.03.2023 Lecture: Emissions altitude and time variations

Week 10

- 06.03.2023 Lecture: Acceleration-processes
- 07.03.2023 Lecture: Acceleration-processes
- 08.03.2023 Exercise: Q-n-Advice: Programming tasks

Week 11

- 13.03.2023 EISCAT Experiment
- 14.03.2023 EISCAT Experiment
- 15.03.2023 EISCAT Experiment

Week 12

- 20.03.2023 Lecture: 1.1, 1.2, 1.3, 1.8
- 21.03.2023 Lecture: 1.9, 1.10, 1.11,
- 22.03.2023 Exercise: Q-n-Advice: Programming tasks

Week 13

- 27.03.2023 Lecture: 1.13,
- 28.03.2023 Lecture: Bow-shock
- 29.03.2023 Lecture: 3.9

Week 15

- 11.04.2023 Lecture: 3.10
- 12.04.2023 Exercise: Q-n-Advice: Programming tasks

Week 16

- 17.04.2023 Lecture: 3.6, 3.13
- 18.04.2023 Lecture: 3.15, 4.14
- 19.04.2023 Lecture: 3.14, 3.16

Week 17

- 24.04.2023 Lecture: 5.1, 5.2, 5.3
- 25.04.2023 Lecture: 5.4, 6.6
- 26.04.2023 Exercise: Q-n-Advice: Programming tasks

Week 18

- 02.05.2023 Lecture: 6.7, 6.8
- 03.05.2023 Lecture: A-n-A: Generator-processes

Week 19

- 08.05.2023 Lecture: TBD
- 09.05.2023 Lecture: TBD
- 10.05.2023 Exercise: TBD

Week 20

- 15.05.2023 Lecture: TBD
- 16.05.2023 Lecture: TBD

Week 21

- 22.05.2023 Lecture: TBD
- 23.05.2023 Lecture : TBD
- 24.05.2023 Exercise: TBD