

FYS610 – Many Body Quantum Mechanics and Quantum Field Theory

Curriculum from Matthew D. Schwartz' *Quantum Field Theory and the Standard Model*

The preliminary plan for the use of the first seven chapters of this book in 2016 is as follows. Much of the material is covered in the curriculum from *Mattuck*, but is included here because of differences in notation and a somewhat different point of view. Material not covered by the lectures will not be a theme for the exam in any case.

1.1–1.3 Cursory.

2.1 Covered in FYS500, see *Goldstein*, ch. 7.

2.2–1 Covered by *Mattuck*, appendix $\mathcal{A}.\infty$ with exercises.

2.2.2 Covered in FYS500, see *Goldstein*, ch. 7.6.

2.3.1–3 Covered in *Mattuck*.

2.3.4 Cursory.

3.1–2 Covered in FYS500, see *Goldstein*, ch. 13.1–2. Will be repeated in the lectures.

3.3–5 Curriculum. Will be lectured

4.1 Overlaps with curriculum from *Mattuck*, but will be lectured.

4.2 Cursory.

5.1 Overlaps partly with FYS500, see *Goldstein* 3.10, and also *Mattuck*. Will be partially lectured.

5.1.1-2 Cursory

5.2-3 Cursory

6.1 Will be lectured.

6.1.2 Cursory

6.2 Overlaps with curriculum from *Mattuck*, but will be lectured.

7.1 Curriculum, will be lectured.

7.2–3 Overlaps with curriculum from *Mattuck*, appendices B, D–E, G. Will be lectured.

7.4 Curriculum if time allows, will be lectured.

7.A Covered in *Mattuck*, appendix F.

This list may be revised.

Per Amund Amundsen