Literature: Fluid Mechanics, Frank M. White, McGraw-Hill, New York, 8th ed., 2016

Reading list for Fluid mechanics M3 (MTF053)

The following parts are **not** part of the course

Chapter 1

- State Relations for Liquids
- Figure 1.4 and 1.6
- Nonnewtonian Fluids
- Surface Tension
- Section 1.10

Chapter 2

- The following parts of Section 2.3
  - Hydrostatic Pressure in Gases
  - The Standard Atmosphere
  - Is the Linear Formula Adequate for Gases?
- Section 2.5-2.7
- Stability
- Stability Related to Waterline Area
- Section 2.9

Chapter 3

- Nonineterial Reference Frame
- Hydraulic and Energy Grade Lines

Chapter 4

- Following parts in Section 4.9
  - Velocity Potential
  - Orthogonality of Streamlines and Potential Lines
  - Generation of Rotationality
- Instability of Rotating Inner Cylinder Flow

Chapter 5

- Ambiguity: The Choice of Variables and Scaling Parameters
- Selections of Scaling (Repeating) Variables
- Some Peculiar Engineering Equations
- Section 5.3
- Exemple 5.9-5.11

Chapter 6

- Section 6.8 (replaced by distributed material)
- Gradual Expansion - The Diffuser
- Section 6.10-6.11
- pars of Section 6.12

Chapter 7

- Laminar Integral Theory
- Buoyant Rising Light Spheres
- Drag of Surface Ships, Body Drag at High Mach Numbers, Biological Drag Reduction
- The Kline
- Fogelman Airfoil
- A Wing Inspired by the Humpback Whale
- A combination Car and Airplan

Chapter 8

Chapter 9

- Section 9.7-9.8
- Thin Airfoil Theory

Chapter 10-11