

MATH 374

Prof. Fatima Azmi

Title of the book : Elements of Differential Geometry, by R. Millman and G. Parker.

We will cover chapters **2** and **4** only. Chapter **1** is a preliminary and you are required to read it.

Review : Math 242 (Linear algebra) and Math 202.

Chapter 2 : Local curve theory.

- **2-1:** Do the following problems;
1.1, 1.2, 1.4, 1.6, 1.7, 1.8(a).
- **2-2:** Do the following problems; 2.2, 2.4, 2.6, 2.8.
- **2-3:** Do the following problems; 3.1, 3.3,3.4, 3.5.
- **2-4:** Do the following problems; 4.2, 4.4, 4.12, 4.15, 4.19,4.22, 4.23, 4.25.
- **2-5:** Do the following problem; 5.2
- **2-6:** Do the following problems; 6.1, 6.3, 6.4, 6.7, 6.8, 6.10, 6.11.

Chapter 4: Local Surface Theory

- **4-1:** Do the following problems; 1.1, 1.2, 1.4, 1.5, 1.11, 1.12.
- **4-3:** Do the following problems; 3.1, 3.2, 3.6, 3.7.
- **4-4** Do the following problems; 4.2, 4.5, 4.7, 4.12.
- **4-5:** Do the following problems; 5.9, 5.11, 5.12.
- **4-7:** Do the following problems; 7.2, 7.3, 7.5, 7.7.
- **4-8:** Do the following problems; 8.1, 8.2, 8.3, 8.4, 8.8, 8.9, 8.15, 8.17.