Surfaces, patches and differential forms

1. Hyperboloid of two sheets. 4.2.9 (c) [Sketch optional]
2. Elliptic paraboloid. 4.2.10 (a) [Sketch optional]
3. Periodic curve on a torus. 4.3.2
4. Partial velocity as patch pushforward of natural frame and directional derivative with respect to partial velocity. 4.3.4
5. Interaction of $d$ and wedge on a surface. 4.4.4(b)
6. Exact and closed forms. 4.4.5
7. Coordinate expressions for 1-forms and 2-forms on a surface. 4.4.7