**MATH 352 Syllabus and Exercises**

**Numerical Analysis, 7th Edition, Burden and Faires**

|  |  |  |
| --- | --- | --- |
| **Chapter 1** | **Section 1.2** | Exercises: 1,2,3,5,10,24 |
| **Section 1.3** | Exercises: 6,7,13 |
| **Chapter 2** | **Section 2.1**  **(Proof of Theorem 2.1 is included)** | Exercises: 1,3,4,5,7,8,10,11 |
| **Section 2.2** | Exercises: 1—5,10,11,13 |
| **Section 2.3** | Exercises: 1—6,10,14 |
| **Section 2.4** | Exercises: 1,2,4,8 |
| **Chapter 3** | **Section 3.1** | Exercises: 1,3,8,15 |
| **Section 3.2** | Exercises: 1,2,5 (a,b),6,13 |
| **Chapter 4** | **Section 4.1**  **(derivation of equation (4.5) is included)** | Exercises: 1,3,4,5,7,14 |
| **Section 4.3** | Exercises: 1,2,3,7,8,11,13,15 |
| **Section 4.4** | Exercises: 1,3,4,5,7 |
| **Chapter 6** | **Section 6.1** | Exercises: 1,3,5 |
| **Section 6.2** | Exercises: 1,3,4,5(a,b,c),6(a,c) |
| **Section 6.3** | Exercises: 1,3,4,5 |
| **Section 6.4** | Exercises: 1,3,5,7 |
| **Section 6.5** | Exercises: 1,2,3 |
| **Section 6.6** | Exercises: 1,2,3,6,10,12,14,17 |
| **Chapter 7** | **Section 7.1**  **(Proofs of Theorems 7.6 & 7.7 are included)** | Exercises: 1—5 |
| **Section 7.2** | Exercises: 1—6 |
| **Section 7.3**  **(SOR method is not included)** | Exercises: 1—4,10,11 |
| **Section 7.4** | Exercises: 1,2,3 |