

## Content

| Course Code | Course Name       | Semester | Theory | Practice | Lab | Credit | ECTS |
|-------------|-------------------|----------|--------|----------|-----|--------|------|
| IT 512      | Operating Systems | 1        | 4      | 0        | 0   | 3      | 8    |

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| Prerequisites          |  |
| Admission Requirements |  |

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|-------------------------|--|
| Language of Instruction | English  |
| Course Type             | Compulsory   |
| Course Level            | Masters Degree   |
| Objective               | This class aims at deepening the notions described during the operating systems introductory class from second year, and the computer hardware class from third year. More precisely, it includes the concepts of process, memory management, input-output management, file system and process communication/synchronization. Laboratory sessions rely on the POSIX version of the C language in order to apply the abstract notions studied during class. |
| Content                 | <ol style="list-style-type: none"><li>1. Giriş</li><li>2. Gerekli hatırlatmalar</li><li>3. İşlemler (process)</li><li>4. İş parçacıkları (threads)</li><li>5. İşlemlerin düzenlenmesi</li><li>6. Bellek yönetimi</li><li>7. Sayfalama (paging)</li><li>8. Sanal bellek</li><li>9. İşlemler arası iletişim</li><li>10. Senkronizasyon sistemleri</li></ol>  |
| References              | <ol style="list-style-type: none"><li>1. Course Slides and Notes</li><li>2. Operating System Concepts, International Student Version, Abraham Silberschatz, Wiley.</li><li>3. Operating systems, William Stallings, Prentice Hall</li><li>4. Modern Operating Systems, Andrew Tanenbaum, Prentice Hall</li></ol>   |

## Theory Topics

| Week | Weekly Contents |
|------|-----------------|
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