

Content

| Course Code | Course Name | Semester | Theory | Practice | Lab | Credit | ECTS |
|-------------|----------------|----------|--------|----------|-----|--------|------|
| DUI211 | Navigation III | 3 | 3 | 0 | 2 | 4 | 5 |

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| Prerequisites | |
| Admission Requirements | |

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| Language of Instruction | Turkish |
| Course Type | Compulsory |
| Course Level | Associate Degree |
| Objective | 1. To determine the ship's position on the ocean, 2. To use concept of the Celestial Coordinates, Time and Apparent Motions of Celestial Body, the Celestial Sphere, composition and dimension of the Solar System for understanding and determining the ship's position. |
| Content | Introduction to celestial navigation, definition of the space, celestial sphere, composition and dimensions of the Solar System, explanation of the eccentricity of the earth's orbit and the apparent annual motion of the Sun, the meaning of the Dec-SHA-RA-GHA-LHA, definition of the apparent solar time and mean solar time, time, equation of time, date line, explanation of astronomical triangle on the celestial sphere, finding and drawing of the astronomical fix and position, using of NP 401, HO 229 and Almanac. |
| References | 1) Astronomik Seyir 1 Süha Baytura 2) Kişisel Ders Notlarım 3) Notik Almanak |

Theory Topics

| Week | Weekly Contents |
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| 1 | Introduction to celestial navigation, definition of the space, celestial sphere |
| 2 | Composition and dimensions of the Solar System, explanation of the eccentricity of the earth's orbit and the apparent annual motion of the Sun |
| 3 | the meaning of the Dec-SHA-RA-GHA-LHA |
| 4 | the meaning of the Dec-SHA-RA-GHA-LHA |
| 5 | Definition of the apparent solar time and mean solar time, time, equation of time, date line |
| 6 | Definition of the apparent solar time and mean solar time, time, equation of time, date line |
| 7 | Explanation of astronomical triangle on the celestial sphere, finding and drawing of the astronomical fix and position |
| 8 | Explanation of astronomical triangle on the celestial sphere, finding and drawing of the astronomical fix and position |
| 9 | Explanation of astronomical triangle on the celestial sphere, finding and drawing of the astronomical fix and position |
| 10 | Explanation of astronomical triangle on the celestial sphere, finding and drawing of the astronomical fix and position |
| 11 | Explanation of astronomical triangle on the celestial sphere, finding and drawing of the astronomical fix and position |
| 12 | using of NP 401, HO 229 and Almanac. |
| 13 | using of NP 401, HO 229 and Almanac. |
| 14 | using of NP 401, HO 229 and Almanac. |