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| Course: | *Mechanics 2* |
| Course id:3OUV2O08 |
| Number of ECTS: 7 |
| Teacher: | Dragi M. Radomirović |
| Course status: | Mandatory |
| Number of active teaching classes (weekly) |
| Lectures: 3 | Practical classes: 3 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None/navesti ako ima |
| 1. Educational goal

Learning about the basic concepts and principles of kinematics and dynamics. |
| 1. Educational outcomes

Student’s ability in solving kinematics and dynamics problems. |
| 1. Course content
* Kinematics of a particles (trajectory, velocity, acceleration and the radius of curvature of the path) Kinematics of rigid bodies (rotation about a fixed axis, translational motion and general plane motion)
* Kinematics of relative motion
* Newton's second law
* Kinetic energy, linear momentum and angular momentum
* Work, energy and power
* Work-energy principle for a particle
* Dynamics of a system of particles
* Momentum and energy principles
* Work-energy principle for a system of particles
* Dynamics of rigid bodies
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| 1. Teaching methods

Lectures, Practical classes, Consultations.  |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam | Mandatory | Points |
| Lecture attendance | Yes | 5 | *Written part of the exam-tasks and theory* | Yes | 30 |
| Test | Yes | 60 |  |
| Exercise attendance | Yes | 5 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Đukić ĐorđeCvetićanin Livija | Kinematics (in Serbian) | Faculty of Technical Sciences, Novi Sad | 2005 |
|  | Maretić Ratko | Collection of solved Problems in Kinematics (in Serbian) | Faculty of Technical Sciences, Novi Sad | 2007 |
|  | Đukić ĐorđeCvetićanin LivijaZuković Miodrag | Dynamics (in Serbian) | Faculty of Technical Sciences, Novi Sad | 2014 |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationUNDERGRADUATE ACADEMIC STUDIES *WATER MANAGEMENT* |
| Table 5.2 Course specification |