

## Course Syllabus

Academic year: 2018-2019

|                  |                                       |
|------------------|---------------------------------------|
| Institution      | University of Petroșani               |
| Faculty          | Mechanical and Electrical Engineering |
| Field of study   | Industrial engineering                |
| Level            | Bachelor                              |
| Program of study | Machine Building Technology           |

|                          |                                    |
|--------------------------|------------------------------------|
| Course                   | <b>Numerical methods</b>           |
| Code                     | 2BB3OD20                           |
| Year of study (semester) | II (III)                           |
| Number of hours          | 70                                 |
| Number of credits        | 5                                  |
| Professor                | Lecturer eng, Ph.D. ZAMORA Adriana |

| No. | Topic  |
|-----|--|
| 1.  | Cinematic couplers. Structure of mechanisms.   |
| 2.  | The kinematics of the bars. Examples.  |
| 3.  | Cinetostatic of bar mechanisms. Examples.  |
| 4.  | Mechanisms with cam. Analysis and synthesis.   |
| 5.  | Dynamics of mechanisms. Operating irregularity and speed adjustment. Balancing the mechanisms. |
| 6.  | Symmetric problems of bars.  |
| 7.  | Mechanisms gears.  |