

关。GDAŃSK UNIVERSITY 创 OF TECHNOLOGY

Subject card

| Subject name and code | Vehicle Suspension Design, PG_00062882 | | | | | | | | |
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| Field of study | Mechanical Engineering | | | | | | | | |
| Date of commencement of studies | February 2023 | | Academic year of realisation of subject | | | 2023/2024 | | | |
| Education level | second-cycle studies | | Subject group | | | | | | |
| Mode of study | Full-time studies | | Mode of delivery | | | at the university | | | |
| Year of study | 2 | | Language of instruction | | | English | | | |
| Semester of study | 3 | | ECTS credits | | | 2.0 | | | |
| Learning profile | general academic profile | | Assessment form | | | assessment | | | |
| Conducting unit | Faculty of Mechanical Engineering and Ship Technology | | | | | | | | |
| Name and surname | Subject supervisor | | dr hab. inż. Jacek Kropiwnicki | | | | | | |
| of lecturer (lecturers) | Teachers | dr hab. inż. Jacek Kropiwnicki | | | | | | | |
| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Projec | t | Seminar | SUM | |
| | Number of study hours | 30.0 | 0.0 | 0.0 0.0 | | | 0.0 | 30 | |
| | E-learning hours included: 0.0 | | | | | | | | |
| Learning activity and number of study hours | Learning activity | Participation ir classes includ plan | n didactic ed in study | Participation in consultation hours | | Self-study SUM | | SUM | |
| | Number of study hours | 30 | | 0.0 | | 0.0 | | 30 | |
| Subject objectives | This course provides a fundamental understanding of vehicle ride and handling behaviour and links this understanding to the practical implications for suspension design. | | | | | | | | |
| Learning outcomes | Course outcome Subject outcome Method of verification | | | | | | | | |
| | [K7_W11] possesses organized knowledge useful in understanding ex-technical conditioning connected with performing the profession of an engineer and taking it into consideration in engineering practice; possesses well- established knowledge within the range of intellectual property, management and organization of manufacturing processes, including the management and life- cycle of a product | | The student has access to the topic of vehicle driving and behavior and combines additional information with practical implications for suspension design. | | | [SW1] Assessment of factual knowledge | | | |
| | [K7_U02] is able to communicate in English in professional matters within the area of technical science and, particularly, of construction and operation of machines | | The student is prepared to actively participate in lectures conducted in a foreign field in the field of kinematics, compliance and vehicle suspension design. | | | [SU3] Assessment of ability to use knowledge gained from the subject | | | |
| | [K7_K82] is equipped to participate actively in lectures, seminars and laboratory classes conducted in foreign language | | This can be understood in English, relating to kinematics and compliance issues and vehicle suspension design. | | | [SK3] Assessment of ability to organize work | | | |
| Subject contents | Role of the suspension. Suspension kinematics and compliances theoretical background and practical measuring schemes. Suspension design an overview of suspension design properties and review of current design philosophy. Review of typical designs. Current design trends. Practical implications. Case studies introduction to modelling and simulation software and discussion of practical case studies. | | | | | | | | |
| Prerequisites and co-requisites | | | | | | | | | |
| Assessment methods | Subject passin | Subject passing criteria | | Passing threshold | | | Percentage of the final grade | | |
| and criteria | Test | | 60.0% | | | 100.0% | | | |

| Recommended reading | Basic literature | Goodarzi, A., Khajepour, A. Advanced Suspension Systems. In: Vehicle Suspension System Technology and Design. Synthesis Lectures on Advances in Automotive Technology. Springer, Cham. Avesta Goodarzi , Amir Khajepour. Vehicle Suspension System Technology and Design. Morgan&Calypool Publishers. | | | | |
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| Supplementary literature eResources addresses | Supplementary literature | Not applicable | | | | |
| | eResources addresses | Adresy na platformie eNauczanie: | | | | |
| | | Vehicle Suspension Design, W, MiBM II st., sem. 03, letni 23/24 (PG_00062882) - Moodle ID: 38561 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=38561 | | | | |
| Example issues/ example questions/ tasks being completed | Role of the suspension. Suspension kinematics. Suspension design properties. Discussion of practical case studies. | | | | | |
| Work placement | Not applicable | | | | | |