University of Gdańsk

Subject card

| | | | |
|---|---|---|---|
| Subject name and code | Astronomical principles of geography - laboratory, PG_00054138 | | |
| Field of study | Geography | | |
| Date of commencement of studies | October 2025 | Academic year of realisation of subject | 2025/2026 |
| Education level | Bachelor's studies | Subject group | Obligatory subject group in the field of study |
| Mode of study | full-time studies | Mode of delivery | at the university |
| Year of study | 1 | Language of instruction | Polish |
| Semester of study | 1 | ECTS credits | 2.0 |
| Learning profile | academic | Assessment form | credit |
| Conducting unit | Division of Atomic and Molecular Spectroscopy and Astrophysics -> Institute of Theoretical Physics and Astrophysics -> Faculty of Mathematics, Physics and Informatics -> Rector | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | dr hab. Piotr Gnaciński | |
| | Teachers | dr hab. Piotr Gnaciński | |

**Lesson types**

| Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|
| Number of study hours | 0.0 | 0.0 | 10.0 | 0.0 | 0.0 | 10 |

E-learning hours included: 0.0

**Learning activity and number of study hours**

| Learning activity | Participation in didactic classes included in study plan | Participation in consultation hours | Self-study | SUM |
|---|---|---|---|---|
| Number of study hours | 10 | 15.0 | 25.0 | 50 |

**Subject objectives**

Students should know the determination of geographic coordinates,

time zones, and be able to calculate sunrises and sunsets.

**Learning outcomes**

| Course outcome | Subject outcome | Method of verification |
|---|---|---|
| [GEOGRL3-U01] identify and analyze basic natural and socio-economic processes and phenomena and analyze their causes and course | Students can calculate geographic coordinates. | [SU4] test/exam - oral or written |
| [GEOGRL3-U03] use theoretical knowledge of geographic sciences and available sources of information to correctly interpret basic natural, social, economic and political processes | Students understand the origin of time zones and the origin of polar nights and days. | [SU1] oral statement/conversation/ discussion |
| [GEOGRL3-U05] find and select the necessary information from professional literature and other sources, including electronic sources | Students can use a rotating map of the sky. | [SU6] demonstration of practical skills |

**Subject contents**

1. Spherical triangles.

2. Rotating map of the sky.

3 Determination of geographical coordinates.

4 Calculation of sunrises and sunsets.

5. Determination of white nights and polar nights and days.

<table>
<tr><td>Prerequisites and co-requisites</td><td colspan="3">Knowledge of mathematics: order of operations, trigonometric functions and radian.<br>Knowledge of how to use a calculator.</td></tr>
<tr><td>Assessment methods and criteria</td><td colspan="3"><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>final test</td><td>51.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td colspan="2">Kreiner J.M., 2009, Ziemia i Wszechświat - astronomia nie tylko dla geografów, Wydawnictwo Naukowe Uniwersytetu Pedagogicznego - Kraków<br><br>Mietelski J., 2001, Astronomia w geografii, Wydawnictwo Naukowe PWN, Warszawa.</td></tr>
<tr><td>Supplementary literature</td><td colspan="2">Rybka E., 1983, Astronomia ogólna, PWN, Warszawa</td></tr>
<tr><td>eResources addresses</td><td colspan="2"></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="3"></td></tr>
<tr><td>Work placement</td><td colspan="3">Not applicable</td></tr>
</table>

Document generated electronically. Does not require a seal or signature.