**Syllabus of an educational component of a degree programme**

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| Name of unit conducting a component | ***Doctoral School of Social Sciences*** |
| Name of an educational component | Space Security in the 21st Century |
| Language of education | English |
| Goals of education | The course is supposed to provide student with basic knowledge about contemporary and future space applications with special attention to the security issues. It should also lead to understanding of the relevance of space security for the international security and for the security strategies of main world powers. |
| Learning outcomes of an educational component | **Knowledge:**  1. Is aware and understands the particular issues pertaining to the human outer space exploitation.  2. Is aware and understands the particular relation between outer space exploitation and security.  **Ability:**  1. is able to utilize the knowledge related to the human exploitation of outer space and space security, creatively identifying related problems.  2. is able to utilize the abovementioned knowledge to formulate proper field of research and conduct innovative research process.  **Competences:**  1. Is ready to acknowledge the relevance of problems of concerning human exploitation of outer space and space security to solve theoretical and practical issues in various scientific disciplines.  2. 1. Is ready to acknowledge the relevance of problems of concerning human exploitation of outer space and space security to solve theoretical and practical issues while conducting own scientific research. |
| Verification methods and assessment criteria of learning outcomes obtained by students | Evaluation of paper prepared by student and her/his participation in the discussion. |
| Type of an educational component (obligatory/optional) | optional |
| Year of study | I, II |
| Semester | Winter |
| Name and surname of the coordinator of a component and/or person/s conducting a component | Marek Czajkowski |
| Name and surname of person/s conducting an examination or granting credit in the case when this sposóis other person than conducting a component | Marek Czajkowski |
| Manner of completion | Lecture by teacher, student presentations of projects related to topics from the list presented by teacher, discussion. |
| Preliminary and additional requirements | N/A |
| Type and number of hours of courses requiring  direct participation of academic staff and students, if in a given component such courses are included | Conversatorium: 15 hrs. |
| Number of ECTS credits assigned to a component | 1 |
| Balance of ECTS credits | Participation to the classes: 15 hrs.  Students own work:  - preparation to the discussion – 15 hrs.  - preparation of her/his own presentation on selected project – 30 hrs.  **Total: 60 hrs.** |
| Applied teaching methods | Lecture, seminar, presentation, discussion. |
| Form and conditions of passing a component, including conditions of allowing to take an examination, as well as form and conditions of passing each type of courses included in a given component | Participation to the class, presentation on selected topic with satisfactory mark, active participation to discussions. |
| Content of an educational module (with division into forms of courses completion) | 1. Outer space as the new domain of human activity, its characteristics and relevance. Space applications and their role in military, politics, economy and society.  2. Space security, its definition, terminology and related theoretical paradigms. Description and analysis of space-related security issues within military, political, economic and social spheres.  3. Space security as an important dimension of the overall international security. |
| List of basic as well as supplementary literature, knowledge of which is required in order to pass a given component | **Basic:**  Al-Rodhan, Nayef R.F. *Meta-Geopolitics of Outer Space: An Analysis of Space Power, Security and Governance.* Palgrave Macmillian, 2012.  Oberg, James E. *Space Power Theory*. US Air Force Academy, 1999.  Moltz, James Clay. *The Politics of Space Security: Strategic Restraint and the Pursuit of National Interests*. Stanford University Press, 2019.  **Supplementary:**  Aliberti, Marco, Cappella, Matteo, and Hrozensky, Tomas. *Measuring Space Power. A Theoretical and Empirical Investigation on Europe*. Springer, 2019.  Czajkowski, Marek. „The Impact of Militarization of Space on the Strategic Balance (Wpływ militaryzacji kosmosu na globalną równowagę strategiczną)”. *Krakowskie Studia Międzynarodowe*, 1 (XIII) (2015), pp. 75-79.  Czajkowski, Marek. „Theory of Spacepower – a Brief Introduction”. *Jagielloński Przegląd Bezpieczeństwa* 2(3) (2017), pp. 25-51  Johnson-Freese, Joan. *Space Warfare in the 21st Century: Arming the Heavens*. Routledge, 2017.  Paladini, Stefania. *The New Frontiers of Space: Economic Implications, Security Issues and Evolving Scenarios*. Palgrave Macmillian, 2019.  Pelton, Joseph N. *Space 2.0: Revolutionary Advances in the Space Industry*. Springer, 2019. |