

Course Information Sheet

University: <i>University of Prešov in Prešov</i>	
Faculty: <i>Faculty of Humanities and Natural Sciences</i>	
Code: <i>2FYZ/mFYVES/22</i>	Title of Course: <i>ASTRONOMY AND ASTROPHYSICS 2</i>
Form of Study: <i>Lectures, seminars</i>	
Number of contact hours: <i>39</i>	
per week: <i>2/1</i> per level/semester:	
Number of credits: <i>3</i>	
Semester: <i>winter</i>	
Degree/Level: <i>2. level</i>	
Prerequisites: <i>2FYZ/mOPTIK/22, 2FYZ/mJADRO/22 - General Physics III, IV</i>	
Grading Policy (Assessment/Evaluation): <i>written and oral exam</i>	
Aims and Objectives: <i>To make students familiar with basis astrophysics, galactic and extragalactic astronomy and cosmology.</i>	
Syllabus/Indicative Content: <i>1. Radiation in astrophysics.</i> <i>2. The fundamental star characteristics.</i> <i>3. Spectral classification of stars.</i> <i>4. Inner construction of the stars, sources of the inner energy.</i> <i>5. The evolution of the stars. The final stages of the stars.</i> <i>6. Variable stars.</i> <i>7. Measure the distance to a star.</i> <i>8. Interstellar mass.</i> <i>9. Structure of Our Galaxy.</i> <i>10. Extragalactic astronomy.</i> <i>11. Cosmology - genesis and evolution of the space.</i>	
Suggested readings: <i>1. Vanýsek, V. 1980. Základy astronómie a astrofyziky. Praha: Academia ČSAV.</i> <i>2. Šolc, M a kol. 1983. Fyzika hvězd vesmíru. Praha: SPN.</i> <i>3. Balek, V.1986. Prečo svietia hviezdy? Bratislava: Alfa.</i> <i>4. Wolf, M. 1992. Astronomická príručka. Praha: Academia ČSAV.</i> <i>5. Široký, J., Široká, M. 1966. Základy astronómie v príkladoch. Praha: SPN.</i> <i>6. Hajduk, A., Štohl, J. 1987. Encyklopédia astronómie. Bratislava: OBZOR.</i> <i>7. Ullman, V. 1986. Gravitace, černé díry a fyzika prostoročasu. Ostrava: ČAS ČSAV.</i> <i>8. Hawking, S. 1985. Černé díry a budoucnost vesmíru. Praha: MLADÁ FRONTA.</i> <i>9. Harwit, M. 2006. Astrophysical Concepts, Astronomy and Astrophysics Library.</i>	
Language of Instruction: <i>English</i>	
Other course information:	
Lecturer/Instructor: <i>doc. RNDr. Mária Csatáryová, PhD.</i>	
Last update: <i>3. mája 2024</i>	
Approved by: <i>prof. RNDr. Marián Reiffers, DrSc.</i>	