GHENT UNIVERSITY

Course Specifications

From the academic year 2023-2024 up to and including the academic year

Stellar Systems: Origin, Structure, Evolution (C003217)

Course size *(nominal values; actual values may depend on programme)*

Credits 6.0 **Study time 180 h**

Course offerings in academic year 2024-2025

Lecturers in academic year 2024-2025

Offered in the following programmes in 2024-2025	**crdts**	**offering**

Teaching languages

English

Keywords

Position of the course

Contents

Observations of stars with similar spectral characteristics are linkted to theoretical evolutionary phases of single stars and of binaries. We investigate how to calculte theoretical fractions of stars with similar characteristics and we discuss the influence of physical parameters that critically affect the theoretical predictions. The predictions are then compared to the most recent observations. Finally, we discuss how the various types of stars and stellar populations affect the evolution of galaxies (chemical evolution) and we distinguish elliptical galaxies (single starburst galaxies) and spiral galaxies where starformation proceeds continuously in time.

Initial competences

To acquire sufficient knowledge in order to start a masterthesis or a PhD within the research group of the Theoretical Astrophysics of the Vrije Universiteit Brussel. Indeed, the main research subject of the group is the study of large groups of stars, how they evolve, how they contribute to the overal evolution of galaxies.

Final competences

To acquire sufficient knowledge in order to start a masterthesis or a PhD within the research group of the Theoretical Astrophysics of the Vrije Universiteit Brussel. Indeed, the main research subject of the group is the study of large groups of stars, how they evolve, how they contribute to the overal evolution of galaxies.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Seminar, Lecture

Study material

None

References

Course content-related study coaching

Assessment moments

end-of-term and continuous assessment

Examination methods in case of periodic assessment during the first examination period

Oral assessment

Examination methods in case of periodic assessment during the second examination period

Oral assessment

Examination methods in case of permanent assessment

Participation

Possibilities of retake in case of permanent assessment

examination during the second examination period is possible in modified form

Extra information on the examination methods

Oral exam and permanent evaluation during the lectures.

Calculation of the examination mark

Teamwork (PE): 50%
Oral exam: 50%