

UNIVERSITY OF MILANO-BICOCCA - DEPARTMENT OF PHYSICS

ASTROPHYSICS AND SPACE PHYSICS



PROGRAM DURATION

2 YEARS



START DATE

OCTOBER 2021



CREDITS

120 ECTS



TUITION FEE

FOREIGN STUDENTS WITH A BACHELOR DEGREE (EARNED ABROAD) WHO ENROLL IN ASTROPHYSICS WILL BE ENTITLED FOR THE FOLLOWING BENEFITS:

1ST YEAR: FULL FEE WAIVER

2ND YEAR: € 600



LOCATION

MILAN, ITALY



CONTACT

DIDATTICA.FISICA@UNIMIB.IT



COURSE DIRECTOR

MASSIMO DOTTI



PROGRAM DESCRIPTION

MSc. Degree in Astrophysics and Space Physics offered by the Department of Physics at the University of Milano-Bicocca is a 2-year study program that provides state of the art knowledge and skills in the theoretical, observational and instrumental aspects of astrophysics and cosmology.

The program provides a broad choice of activities including hands-on sessions at the in-house optical telescope, data analysis of observations taken from the best instruments available at top facilities, high-performance numerical simulations of complex astrophysical systems and advanced classes in the new field of gravitational wave astrophysics.

The student formation is completed with a research project at the basis of a Master thesis, which can be carried out within the large international collaborations of the astrophysics group.



CAREER PATH

The expertise gained through the program will open a range of career paths both in national and international environments. The acquired skills will be instrumental for pursuing a research career either within academia or in the private and public sectors. The program also provides a strong foundation for undertaking doctoral studies

CURRICULUM

FIRST YEAR

GALAXIES AND DYNAMICS, 8 ECTS

INTRODUCTION TO COSMOLOGY, 6 ECTS

LABORATORY OF DATA ANALYSIS, 6 ECTS

RELATIVISTIC ASTROPHYSICS, 8 ECTS

STELLAR ASTROPHYSICS, 8 ECTS

TWO OF THE FOLLOWING:

ASTRONOMICAL INSTRUMENTATION, 6 ECTS

ASTROPHYSICS OF GRAVITATIONAL WAVES, 6 ECTS

COSMIC STRUCTURE FORMATION, 6 ECTS

EXPERIMENTAL COSMOLOGY, 6 ECTS

LABORATORY OF DATA ACQUISITION, 6 ECTS

TWO OF THE FOLLOWING:

ASTROSTATISTICS, 6 ECTS

COSMIC RAYS, 6 ECTS

GENERAL RELATIVITY, 6 ECTS

NUMERICAL RELATIVITY, 6 ECTS

RADIATIVE PROCESSES, 6 ECTS

SECOND YEAR

ELECTIVE COURSES, STUDENTS ARE FREE TO CHOOSE FROM THE COURSES OFFERED AT MILANO-BICOCCA UNIVERSITY, 12 ECTS

FURTHER LINGUISTIC KNOWLEDGE OR LEARNING ACTIVITIES, 3 ECTS

MASTER THESIS, 45 ECTS

DEGREE REQUIREMENTS

Min. 3 years Bachelor Degree from an accredited college/university or its equivalents, with min. 18 ECTS in mathematics and **18 ECTS in physics including a basic knowledge of quantum mechanics.**

Equivalencies will be evaluated by the admission committee.

Language Certification: Certificate of proficiency in English corresponding to min. B2 level.

HOW TO ENROLL

Admission procedures **vary according to the student's nationality and place of residence.** For complete clarity concerning different procedures, we invite those interested to consult our website:

<https://en.unimib.it/education/how-enrol>

For further information and updated full details please consult our website:

<https://en.unimib.it/international/international-programmes/astrophysics-and-space-physics>

ACCOMMODATION AT BICOCCA

To book accommodation and learn about the costs and terms of your stay you can write to:

booking.bicocca.fms.it@sodexo.com.

Our University also offers scholarships to cover accommodation and living costs. For terms of application please consult: <https://en.unimib.it/services/fees-and-funding>