## ASTRONOMY AND ASTROPHYSICS

AST 6112 Solar System Astrophysics 3 Credits

**Grading Scheme:** Letter Grade

Systematic examination of the formation and current state of the solar

system.

AST 6215 Stars and the Galaxy 3 Credits

**Grading Scheme:** Letter Grade

Stars as constituents of galaxies, with discussion of both the theoretical

and observational aspects of the topic.

AST 6245 Stellar Atmospheres and Radiative Processes 3 Credits

Grading Scheme: Letter Grade

Radiative transfer, spectral line formation and broadening, and other topics applicable to stellar atmospheres and photoionized nebulae.

**AST 6309 Galaxies and Cosmology 3 Credits** 

Grading Scheme: Letter Grade

Observations and interpretations of the kinematics, dynamics, and structure of the Milky Way Galaxy, extragalactic objects, and galaxy

clusters.

AST 6336 Astrophysics of the Interstellar Medium 3 Credits

**Grading Scheme:** Letter Grade

Complex interplay of physical processes that determine the structure of the interstellar medium in our galaxy; compares observational data with

theoretical prediction.

AST 6725C Fundamentals of Observational Astronomy 3 Credits

**Grading Scheme:** Letter Grade

Overview of techniques associated with observational astronomy.

AST 6905 Individual Work 1-6 Credits, Max 12 Credits

Grading Scheme: Letter Grade

Supervised study or research in areas not covered by other courses.

AST 6925 Departmental Colloquium 1 Credit, Max 10 Credits

Grading Scheme: S/U

Repeatable for credit. Intended for first-year graduate students.

Presentation of topics by visiting and local researchers.

Corequisite: AST 6935, AST 6936

AST 6935 Frontiers in Astronomy 1 Credit, Max 6 Credits

Grading Scheme: S/U

Repeatable for credit. Recent developments in theoretical and

observational astronomy and astrophysics.

Corequisite: AST 6925, AST 6936

AST 6936 Astronomy Journal Club 1 Credit

Grading Scheme: S/U

Intended for first-year graduate students. Discussion of journal articles.

Prerequisite: AST 6925, 6935.

AST 7939 Special Topics 2-4 Credits, Max 12 Credits

**Grading Scheme:** Letter Grade

Assigned reading, programs, seminar, or lecture series in a new field of

advanced astronomy.

AST 7979 Advanced Research 1-12 Credits

Grading Scheme: S/U

Research for doctoral students before admission to candidacy. Designed for students with a master's degree in the field of study or for students who have been accepted for a doctoral program. Not appropriate for

students who have been admitted to candidacy.

AST 7980 Research for Doctoral Dissertation 1-15 Credits

Grading Scheme: S/U

Research for Doctoral Dissertation