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Title: EXOPLANETS
 Status: Definitive but changes made
 Code: **4012ASTRON** (101074)
 Version Start Date: 01-08-2011

Owning School/Faculty: Astrophysics Research Institute
 Teaching School/Faculty: Astrophysics Research Institute

Team	Leader
Susan Percival	Y
David Hyder	
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Academic Level: FHEQ4 **Credit Value:** 12.00 **Total Delivered Hours:** 100.00

Total Learning Hours: 120 **Private Study:** 20

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Online	14.000
Practical	80.000
Tutorial	6.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	Popular Article	20.0	
Report	AS2	Practical computer exercise - Doppler Wobble technique	30.0	
Report	AS3	Collaborative Practical exercise - Exoplanet transit lightcurve measurements using the Liverpool Telescope	30.0	
Test	AS4	Online multiple choice test	20.0	

Aims

This module gives an overview of the ongoing search for and study of Extra-Solar Planets. As well as describing the history of the field, the techniques used to hunt for planets, and the current status of research, the possible future advances will be discussed.

Learning Outcomes

After completing the module the student should be able to:

- 1 Display a broad knowledge of the history and current state of Exoplanet research.
- 2 Understand a range of Exoplanet searching techniques and appreciate their advantages and limitations.
- 3 Have an appreciation for the main areas of ongoing research and the proposed techniques that may help to resolve unanswered questions.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Popular Article	1		
Report	2		
Report	2		
Test	1	2	3

Outline Syllabus

- 1. A brief overview of the theory of the formation of planetary systems.*
- 2. The first discoveries of exoplanets and the questions raised by them.*
- 3. Techniques for exoplanet discovery, their advantages and limitations and how this leads to the current state of knowledge.*
- 4. Recent modifications to the theory of planetary formation and the remaining unanswered questions.*
- 5. Future developments in exoplanet research and the search for life in the universe.*

Learning Activities

CD-ROM notes, multiple choice questions and exercises, multi-media and web resources and email interaction with tutors.

References

Notes

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