

| Module Details | | |
|----------------|--|--|
| Module Title | Remote Sensing | |
| Module Code | ARC7053-B | |
| Academic Year | 2021/2 | |
| Credits | 20 | |
| School | School of Archaeological and Forensic Sciences | |
| FHEQ Level | FHEQ Level 7 | |

| Contact Hours | | | | |
|----------------|-------|--|--|--|
| Туре | Hours | | | |
| Lectures | 24 | | | |
| Seminars | 10 | | | |
| Laboratories | 15 | | | |
| Directed Study | 151 | | | |

| Availability | | | | |
|--------------|-------------------------------------|--|--|--|
| Occurrence | Location / Period | | | |
| BDA | University of Bradford / Semester 1 | | | |

Module Aims

This module provides a basic knowledge of the theory of magnetic and electromagnetic phenomena and how these are exploited for the purpose of prospection.

Outline Syllabus

Origins of magnetic properties. Magnetic properties of materials. Magnetic anomalies and Magnetometers. Introduction to electromagnetism and the EM Spectrum. Low and high frequency detectors. Visible and non visible light spectrum imagery of archaeology.

| Learning Outcomes | | |
|-------------------|---|--|
| Outcome Number | Description | |
| 01 | Demonstrate advanced skills in the treatment and presentation of quantitative data and perform advanced laboratory tasks. | |
| 02 | Demonstrate a theoretical and practical understanding of both 'passive' methods, using the effects of the geomagnetic field, and 'active' methods, using techniques that exploit the EM spectrum. | |
| 03 | Display an in depth knowledge of appropriate selection and application of survey methods in a variety of archaeological contexts. | |

Learning, Teaching and Assessment Strategy

Lectures, laboratories and seminars Fundamental principles will be taught in lecture based sessions and through the use of worked examples. Laboratory classes will be used to develop practical skills and apply them in a wide range of challenging environments. Practical and communication skills will be tested by the submission of laboratory reports and seminars which will cover different aspects which are progressively taught through the course. In-depth knowledge of the topics covered will be assessed by an extended report / essay. There will be written feedback with opportunity for discussion. Directed study will be used by students for reading of literature detailed in the module documentation. Teaching will utilise a combination of online and face to face activities.

| Mode of Assessment | | | | | |
|--------------------|-------------------|--|-----------|--|--|
| Туре | Method | Description | Weighting | | |
| Summative | Laboratory Report | Lab Report on Magnetic Experiment (1500 words) | 40% | | |
| Summative | Coursework | Extended Report - 2500 words | 60% | | |
| Formative | Laboratory Report | Outline of Report | N/A | | |

| Reading List |
|--|
| To access the reading list for this module, please visit <u>https://bradford.rl.talis.com/index.html</u> |

Please note:

This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.

© University of Bradford 2021

https://bradford.ac.uk