



Matthew Whyndham

Graduate Tutor, Department of Space and Climate Physics
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SUMMARY

Experienced project manager with a strong scientific/engineering background, with particular expertise in space technology and instrumentation. Teacher at university and professional level. Active in developing innovative teaching methods applicable to modern academic and industrial contexts, and in support of the disciplines of project management, systems engineering and space technology.

MAJOR ROLES

(most recent first)

Departmental Graduate Tutor 2007–

Department of Space and Climate Physics

Ensuring that the Department delivers high quality teaching services to students and to its partner departments. Managing all undergraduate and graduate teaching activities of the Department (which has approx 30 academic staff teaching across 35 taught courses serving a variety of programmes), coordinating with other Departments, relevant Faculties and UCL as a whole. Ensuring UCL's standards, procedures and best practices are adhered to. Guiding the administration of departmental teaching. Promoting the development of teaching and learning within the Department.

Programme Tutor 2007–

MSc Space Technology and Space Science

Operational management of these full time programmes. Organising all aspects of the programme. Working in conjunction with corresponding MSc Tutor in Dept of EEE and MSc administrators in S&CP. Coordination of teaching and supervision within the programme. Contributing to the teaching within certain constituent courses of the programme.

Programme Tutor 2007–

MSc Systems Engineering Management

This is a modular flexible programme oriented toward industrial delegates, and has a close relationship with short course and bespoke training of the TMG through the UCL Centre for Systems Engineering. Organising all aspects of the programme, which has approximately 50 active students at any time. Working with its oversight committee, the Programme Leader and the Programme Administrator. Coordination of teaching and supervision within the programme. Contributing to the teaching within certain constituent courses of the programme.

Lecturer in Systems Engineering 2004–

UCL Centre for Systems Engineering

Teaching and content development in Postgraduate courses (including Professional Development, including bespoke industrial courses), and in UCL staff training programmes, covering:

- Project management
- Research project management
- Requirements and scope management
- Engineering process monitoring and control
- Rail systems engineering

Tutor : Project Management APMP 2001–

*Dept of Management Science and Innovation
(formerly the Management Studies Centre)*

Lead Tutor on ~60% of this 5-day Professional Development course, accredited to APM's APMP standard. Teaching on the course, specialising in planning and quantitative tools. Authoring and editing materials, including revision cases and exercises, to support syllabus-led learning outcomes, and to conform to updates to the APMP syllabus and APM-BoK. Working closely with the Course Leader and the MSI team in developing the content of the course. Representing UCL in liaison with APM in working groups and meetings.

Lecturer in Space Technology 2002–

Departments of Physics & Astronomy and Space & Climate Physics

Teaching in Undergraduate and Postgraduate programmes, specialising in:

- Communications technology
- Digital subsystems in spacecraft environments
- Instrumentation data handling
- Technology project management
- Systems engineering
- Space project organisation
- Space operations

Includes authoring materials, delivery, assessment and QA.

Tutor in Project Management 1998–

Department of Management Science and Innovation

Project Management module serving many UCL Undergraduate and Postgraduate programmes. Covering Tools and Techniques including the use of planning software. Preparation of all materials for ~50% of the module. Design of lesson plans for self and supporting TA's. Development of module VLE. Authoring of cases and design of assessments, including MCQ's and Peer Assessments of group projects.

Project Manager : Solar-B EIS

2000–2002

Management of the UK contribution to this UK-US-Japan solar spectroscopy system, from project inception through to definition. User group liaison and requirements capture, architectural design trades and project management. This phase included a formal NASA-led process to competitively select a US consortium partner.

Project Manager : Koronas-F ReSIK

1991–2003

Detector development and project management for a challenging Poland-UK-US scientific collaboration for a low-cost spectrometer flown on a Russian solar satellite observatory. The project included adaptation and re-use of existing components to conform with the Koronas-F constraints, design and manufacture of new hardware, and integration, verification and characterisation of the assembled system prior to delivery and flight.

Project Management Assistant : SOHO CDS

1994–2002

Solar Physics Group,

Day-to-day activities associated with technology development in the latter part of this large international programme (SOHO was an ESA/NASA cooperation).

Three major UK collaborating institutions, and many other partners and contractors. Emphasis on compliance with agency and user requirements through the Quality Assurance process. Editing of verification test report package prior to agency technical reviews, for PM, EM/QM and FM phases. Witnessing sub-contractor verification tests, and participation in system-level and spacecraft verification and calibration programmes.

Detector Physicist : Solar-A BCS and other applications

1987–1992

MSSL Detector Physics Group

Design and development of customised x-ray/EUV detector systems for solar physics applications, at all project stages from concept to flight and operational support. Device physics theoretical modelling (radiation interactions and amplification processes in gases and solids), device fabrication and laboratory characterisation. Refinement of laboratory equipment to spacecraft environmental standards. Active participation in all project processes, e.g. technical reviews, engineering test activities (T/V, vibration, subsystem I/F verification), commissioning test and user guidance. Attendance at technical conferences, publication of novel results in literature.

OTHER SKILLS Computing – Microsoft Project, Pertmaster. Advanced MS Word, Excel and Powerpoint. VLE development (Moodle, WebCT). Website design and HTML fundamentals. Experienced with Windows, Mac and Unix. Fairly competent in VB, C and IDL; some exposure to Fortran and scripting languages.

Languages – English (native), Mandarin (intermediate), Welsh (rusty), French (basic).

Mechanically and electrically adept, but knows when to call an engineer.

PROFESSIONAL MEMBERSHIPS APM
INCOSE

EDUCATION BSc 2.2 Hons Physics and Astrophysics, University of Leeds, 1987

A-levels: Mathematics, Physics, DCT
GCSE/O-levels: 11

PERSONAL DETAILS DOB: 10 March 1966
UK Passport Holder
Full UK Driving Licence

INTERESTS Photography, Tai Chi, Running

REFERENCES

(available on request)