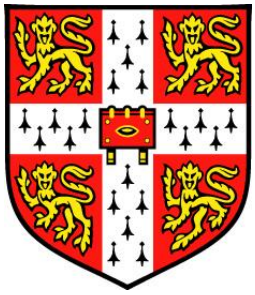

Institute of Astronomy
University of Cambridge

Natural Sciences Tripos

Part III Astrophysics
COURSE GUIDE

2011–2012

http://www.ast.cam.ac.uk/sites/default/files/PartIII_CourseGuide.pdf

Natural Sciences Tripos - Part III Astrophysics 2011 – 2012

Aims and objectives

The Part III course is designed to develop students' analytical, critical and numerical skills to the point that they are equipped to undertake independent research in astrophysics. These aims are advanced through taught courses, which develop students' mathematical skills through detailed analysis of topics at the forefront of contemporary research and through the hands on experience of a substantial research project. The project work encourages students to develop a critical attitude and an innovative approach to problem solving. The more independent working style is developed under the guidance of a supervisor from the Institute of Astronomy. The courses recommended by the Institute of Astronomy are as follows.
Timetable

Michaelmas 2011	**Lent 2012**
Prof. M A Thomson† Particle Physics M. W. F. 9 *Small Lecture Theatre* [2 units] [P]	Prof. N W Evans Galactic Astronomy and Dynamics M. W. F. 10 *MR11* [3 units] [M]
Prof. J C B Papaloizou Astrophysical Fluid Dynamics M. W. F. 9 *MR13* [3 units] [M]	Prof. E P S Shellard Advanced Cosmology M. W. F. 11 *MR9* [3 units] [M]
Dr H S Reall General Relativity M. W. F. 10 *MR2* [3 units] [M]	Prof. M Haehnelt Origin and Evolution of Galaxies M W F 12 *MR9* [3 units] [M]
Prof. J D Barrow and Dr A D Challinor Cosmology M. W. F. 11 *MR3* [3 units] [M]	Prof. P K Townsend Black Holes Tu. Th. S. 10 *MR2* [3 units] [M]
Dr F K Priestley, Prof. D McKenzie and Dr A Deuss† Physics of the Earth as a Planet M. W. F. 11 *Small Lecture Theatre* [2 units] [P]	Prof. M A Parker and Prof. G P E Efstathiou † Particle Astrophysics Tu. Th 10 *Small Lecture Theatre* [1 unit] [P]
Prof. A Davis Quantum Field Theory Tu. Th. 9 F 2 *MR2* [3 units] [M]	Dr G O Ogilvie Dynamics of Astrophysical Discs Tu. Th. 11 *MR5* [2 units] [M]
Dr M C Wyatt Planetary System Dynamics Tu. Th. S. 10 *MR9* [3 units] [M]	
Dr C A Tout Structure and Evolution of Stars Tu. Th. S. 11 *MR9* [3 units] [M]	
In addition, attendance at a short orientation course, covering practical aspects of Unix and use of the Institute of Astronomy Science Cluster is required.	
Dr J. S. Sanders* Introduction to Unix & Computing. (O24 CTA) (5 lectures, 2pm: Th 6, Mon 10, Tu 11, Wed 12, Th 13 Oct.)	

*[All lectures will be held in the Centre for Mathematical Sciences meeting rooms (MR) Clarkson Road except * which will be held at the IoA, Madingley Road and † in the Small Lecture Theatre in the the Cavendish Laboratory (West Cambridge).]*
Mathematics [M], Physics [P].

Lecture courses

It is recommended that students aim to take the equivalent of four 3-units 24-lecture courses (see Examination Course Choices below). At least three of these courses should be selected from the recommended list of courses, compiled annually by the Institute of Astronomy on the grounds of suitability and relevance. One course (of 3 units or fewer) may be chosen freely from the Part III Mathematics courses and this need not be relevant to astrophysics. The courses offered in Part III Mathematics vary from year to year and may be found in their Lecture List at http://www.maths.cam.ac.uk/lecturelists/PartIIIWeb.pdf. Students should consult the Part III Course Coordinator for guidance about choice of courses.

The lecture courses are supported by Examples Classes organised by the lecturer. Michaelmas Part III Physics courses are examined in January and all Part III Mathematics courses and the Lent Physics course are examined in May/June.

Research Projects

A compulsory element of the course is a substantial research project, extending over two terms. This is undertaken with the guidance of a supervisor from the Institute of Astronomy. The research project accounts for a third of the total marks available for the course.

Each year the Institute produces a *booklet* containing descriptions of the individual projects available. The booklet is made available in June of the preceding academic year in order to allow preliminary consideration of the projects over the summer. Each entry contains a brief description of the background to the project along with a summary of the type of work involved and several references to where more information can be obtained. Following the project descriptions, details of the timetable, format of the project write-ups and the criteria to be used in the assessment of the projects are included.

Please read the University's guidelines on plagiarism at
www.admin.cam.ac.uk/univ/plagiarism/students/statement.html.

Project Timetable

Michaelmas Term

An orientation course (5 lectures) covering unix, the Institute of Astronomy Science Cluster, LaTeX (text-processing facility) and information resources available on-line commences on the first Thursday of Michaelmas Full Term (6 October 2011).

Choice of up to five projects, in rank order, should be handed to the Course Secretary by 4.30 pm on the second Friday of Michaelmas Full Term (14 October 2011). Students who do not supply rank-ordered choices by the deadline will be allocated a project by the Project Coordinator.

Notification of approval of project choice will be made by e-mail no later than the third Tuesday of Michaelmas Full Term (18 October 2011). The equivalent of 3 formal Supervisions will be offered by the Project Supervisor in the Michaelmas Term.

An interim progress report, length no more than 1,000 words, bearing the signature of the supervisor and responsible University Teaching Officer (UTO), must be handed to Judith Moss no later than the last day of Michaelmas Full Term (2 December 2011). The report should be produced with LaTeX, or an equivalent text-processing package and may contain material that can be incorporated in the final project report. The report must indicate the progress so far and give a clear indication of the aims and how results will be achieved. This is particularly important where the results of the project depend on data that has yet to be analysed. The progress reports do not constitute part of the formal assessment but are regarded as an essential part of the monitoring procedure.

Lent Term

The equivalent of 3 formal Supervisions will be offered by the Project Supervisor.

Practice oral presentations, consisting of a 20 minute talk followed by up to 10 minutes of questions, to an audience of Part III Astrophysics students, Project Supervisors and the Project Coordinator will be given on the last Thursday and Friday of Lent Term (15 and 16 March 2012). A final timetable for the presentations will be provided by e-mail during the previous week. The presentation is not formally assessed but offers the opportunity to become familiar with the format of the presentation, to be assessed by the Part III Examiners in the Easter Term. The Project Supervisor's attendance at the informal presentation and subsequent feedback constitutes the fourth and final, Supervision of the Lent Term.

Easter Term

A draft of the final project report, generated with LaTeX or an equivalent text-processing package, should be handed to the Project Supervisor no later than 18 April 2012. An eighth Supervision, to discuss the draft report, should take place no later than the first Tuesday of Easter Full Term (24 April 2012).

A formal, assessed, oral presentation to Part III Astrophysics Examiners will take place on the second Thursday or Friday of Easter Full Term (3 or 4 May 2012). A final timetable for the presentations will be provided via e-mail during the previous week. The presentation should consist of a 20 minute description of the project with PowerPoint or equivalent on a laptop computer. The presentation will be followed by up to 10 minutes of questions. The Examiners will allocate approximately 15% of the total marks for the project on the basis of the presentation.

The NST Part III Astrophysics Examiners meeting takes place on 19 June 2012.

Project reports may be collected from the Course Secretary after 9.00 am on Wednesday 20 June 2012.

Project Report Format and Content

The report should read as a self-contained document, presented in the style of a scientific research report or paper in a scientific journal. The main sections of the report will describe the work undertaken, the results obtained and an assessment of their significance. An Abstract, Introduction, Conclusions and References should also be included. Supporting Figures and Tables should be used both as an aid in presenting data and results and also to enhance the clarity of the submission. In some circumstances an appendix containing more extensive tabular material/results may be included.

Reports should consist of a text of no more than 8,000 words, not counting Figures, Tables, Captions, References and any Appendices. The submission must be produced with LaTeX, or another text-processing package, with computer generated figures. You must include a declaration that the text does not exceed 8,000 words. Projects found to exceed this limit will be returned for shortening and a penalty will apply for late submission.

The submission should be logically structured, clear and complete, while remaining concise. The reader should be able to understand the context in which the investigation was undertaken, the main features of the project, the results and how they relate to the advancement of the subject. In addition to the descriptive material, questions a report would be expected to address include, "Why were particular approaches adopted?" - back of the envelope calculations will often be helpful and relevant - "What has been learnt?" and "What information/work would have helped us to learn more?"

It is a fundamental tenet of scientific research that due acknowledgment is given to the work and ideas of others that form the basis of, or are incorporated in, a research presentation. You must always acknowledge the source of an idea or material you use with a specific reference. Plagiarism, including the use of another individual's ideas, data or text, is regarded as an extremely serious disciplinary offence by the University: for further guidance on what constitutes plagiarism, see www.admin.cam.ac.uk/univ/plagiarism/students/statement.html. It is a requirement that the project investigation and the project report are both the work of the candidate alone and no form of collaboration is allowed.

Two copies of the final project report must be handed, in person to the Course Secretary no later than 4.30 pm on the second Tuesday of Easter Full Term (1 May 2012). Late submissions must be submitted via your College

Tutor with an accompanying letter of explanation from the Tutor. Your University Examination Number must NOT appear anywhere in the report or on the cover sheet (see next paragraph).

Each report (two copies) must be accompanied by a cover sheet that should bear (1) the title of the project, (2) your name, (3) your college, (4) your home address and (5) a signed declaration that reads:

I declare that this project report represents work undertaken as part of the NST Part III Astrophysics Examination. It is the result of my own work and includes nothing which was performed in collaboration. No part of the report has been submitted for any degree, diploma or any other qualification at any other university. It does not exceed 8,000 words, excluding Figures, Tables, Captions, References, Equations and any Appendices. I also declare that an electronic file containing this work has been sent by email (jm(at)ast.cam.ac.uk) on this date.

Signed.....
Date .....

If you are in any doubt as to whether you can sign such a declaration you should consult the Part III Coordinator before submitting your report. In the event that your project report is not collected after the Examinations it will be sent to the address provided on the cover sheet.

Examinations

Course Choices

Students offering courses for examination which are given as part of *Part III Physics* must complete and return their college examination forms by the appropriate deadline. Please ensure that one copy of the form is submitted to the Course Secretary in the Institute of Astronomy during the Michaelmas Term. Further information about procedures for examination entries will be made available at the beginning of the Michaelmas Term. Specific information about the examination is given in notices put up on the Part III noticeboard outside the Pippard Lecture Theatre and students should make sure that they read these regularly.

Students are required to submit notification of which courses they will be offering for examination given as *Part III Mathematics* no later than Friday, 27 April 2012 (this date may be subject to change). **Three copies** of your choice of courses must be submitted, one to your College Director of Studies in College, one to the DAMTP Faculty Office and one to the Course Secretary at the Institute of Astronomy. Your Director of Studies needs to check, approve, sign and forward your nomination form to DAMTP. Make sure you allow your DoS at least 3 week days to complete the process.

The Examiners will base their decision on 17, 18 or 19 units consisting of 6 project units plus the most favourable combination of examination units. Courses should be selected from the recommended list, although one course, of 3 units or fewer, may be selected from the full suite of Part III Mathematics courses.

Special Examination Arrangements

Any student who believes there are circumstances that require special treatment by the examiners must ensure that this information is communicated to the Course Secretary by their College at the earliest opportunity and well before the project presentations, see http://www.admin.cam.ac.uk/offices/exams/students/special_12.pdf.

Calculators

For the examinations candidates will be permitted to use only the standard University calculator CASIO fx 115 (any version), CASIO fx 570 (any version), or CASIO fx991 (any version). Each such calculator must be marked in the approved fashion.

It is the responsibility of each student to equip themselves with a suitable calculator as described. A few spare calculators are provided in examination rooms but only to students whose own calculator has malfunctioned.

SALE OF STANDARD CALCULATORS

Standard University calculators, the CASIO fx 991ES marked in the approved fashion, will be on sale at the beginning of Full Michaelmas Term 2011 at approximately £14 each as follows:

- Board of Examinations Office (for any subject except Land Economy), 10 Peas Hill;
- Computer Laboratory, William Gates Building, from the Student Administrator (for the Computer Science Tripos and the M.Phil. Examination in Advanced Computer Science);
- Department of Chemistry, Part IA laboratory preparation room (for the Natural Sciences Tripos);

Students are strongly advised to purchase calculators at the beginning of Full Michaelmas Term at the centres named above.

Students already possessing a CASIO fx 115 (any version) or CASIO fx 570 (any version) and the CASIO fx 991 will be able to have it marked appropriately at no cost at one of the above centres.

The CASIO fx 991ES is being withdrawn by CASIO. Whilst stocks are available the Board of Examinations will continue to sell these calculators to students. Once this model becomes unavailable, the CASIO fx 115ES PLUS will replace it. The price of these calculators will be £16.

Criteria for Marking

The Part III Mathematics and Physics examination papers are marked by Assessors (who are normally the course lecturers) appointed by the relevant department and these marks are relayed to the Part III Astrophysics Examiners who consider them in conjunction with the marks obtained on the project.

The Institute of Astronomy Teaching Committee recommends that the degree class be allocated according to the following criteria. An explanation of the marking scheme can be found here.

First class marks

A candidate placed in the first class will be able to demonstrate a full command and a secure understanding of the examinable material. Scripts will contain substantially correct solutions to most of the quantitative parts of a question, showing a good grasp of mathematical skills. For questions of an essay nature, first class marks will be awarded for work which is excellent, both in range and in depth of knowledge and in the argument and analysis that it brings to bear.

A project gaining First Class marks will demonstrate an excellent understanding of the methods and results obtained and an ability to argue for the significance of these results in terms of their wider scientific context. Reports awarded First Class marks should demonstrate excellent organisation and clarity of thought; an Oral Presentation awarded First Class marks should likewise demonstrate outstanding organisation and clarity and the response to questions should exhibit a commanding grasp of the subject matter and wider context.

Upper Second class marks, II.1

A candidate placed in the upper second class will be able to demonstrate a good command and some understanding of the examinable material. Scripts will contain solutions to most of the quantitative parts of a question, thereby demonstrating the basic skills involved. For the essay and questions of an essay nature, II.1 marks will be awarded for work that demonstrates knowledge, but which does not provide as impressive a display of understanding, argument and analysis as those in the first class.

A project gaining an upper second class should demonstrate a good understanding of the methods and results obtained and an ability to synthesise these results in their wider scientific context in a well organised report. Oral presentations in this category should be well organised and attractive. The response to questions should demonstrate that the student has understood the subject material, but would not demonstrate the same critical flair as candidates awarded a First class in this category.

Lower Second class marks, II.2

A candidate placed in the lower second class will be able to demonstrate some command of the examinable material but with limited understanding. Candidates should demonstrate the ability to make good attempts at the straightforward parts of questions but limited ability to tackle any of the more challenging topics. Answers to questions of a mathematical nature will show an indication of what is required, but fail to proceed sufficiently far into the later parts to demonstrate the skills involved.

A project gaining a lower second class would demonstrate a sound understanding of the methods and results obtained, but would not exhibit the same originality of approach or grasp of the connection to the wider field as projects awarded higher class marks. Reports in this category are expected to be reasonably well organised, to clearly set out the work undertaken and to contain appropriate references. Oral presentations in this category will make clear what the student has accomplished but the response to questions may indicate that the understanding is relatively shallow.

Third class marks

A candidate placed in the third class will be able to demonstrate some knowledge, but have a poor command of the skills expected and very limited understanding of the examinable material.

A project gaining a Third class mark would demonstrate relatively poor progress with pursuing the research topic and/or evidence of incomplete understanding of the methods or results obtained. A report gaining a Third class mark may be poorly structured and unable to fully justify and explain the results obtained. Likewise an oral presentation in this category may be incoherent, with the response to questions indicating a poor grasp of the material.

Ordinary/Fail

A fail mark will be given when a candidate demonstrates little or no knowledge of the material and little or no ability to begin to tackle questions of a mathematical nature.

A project would be awarded a fail mark in the case that the student had failed to achieve any of the significant objectives of the research topic and had failed to provide a reasoned account of why this was the case. A report in this category would provide little evidence of engagement with, or understanding of, the research topic or its relation to the wider field. Likewise an oral awarded a fail mark would fail to communicate the results and relevance of the project work and the answers to questions would reveal a lack of understanding.

Institute of Astronomy Prize

The Institute of Astronomy Prize is awarded annually to that candidate for Astrophysics in Part III of the Natural Sciences Tripos who has in the judgement of the Examiners shown the greatest distinction in that examination, provided that his or her work is of sufficient merit. The value of the Prize for academic year 2011/12 is £500.

Examination Results

Examinations are a University matter and covered by strict regulations. Whether you have a complaint or not, you should not, under any circumstances, seek to discuss your examination result with your examiners. The University has a standard procedure for dealing with complaints about examination results.

Any complaints or requests for reconsideration must be made in writing by your College (usually via your Senior Tutor) to the Chairman of the Examiners. You should therefore discuss the matter with your College Tutor who will advise you further. You should note that any investigation by the University will usually confine itself to seeing that the examiners acted correctly (for example that all the marks you received were entered into the mark book) and not try to second guess the examiners by re-marking your papers.

Feedback and Consultation Mechanisms

During the first two weeks of Michaelmas Term students will be invited to elect one representative from their Part III Astrophysics cohort to attend Teaching Committee meetings. Normally these meetings are held at 2pm on the fourth Thursday of each Full Term.

Students are invited to complete feedback questionnaires for each lecture course. These are relayed to the lecturer. In addition, at the end of the year, there is a general feedback questionnaire on the course as a whole. This is considered by the Astrophysics Teaching Committee. Students are however urged to get in contact with the Part III Course Coordinator at the earliest opportunity if they encounter problems during the year.

Contacts

Course Coordinator:	Ian Parry	37092	Hoyle Rm 57	irp(at)ast.cam.ac.uk
Course Secretary:	Judith Moss	37521	Hoyle Rm 4	jm(at)ast.cam.ac.uk
Teaching Committee Chair:	Christopher Tout	37502	Hoyle Rm 61	cat(at)ast.cam.ac.uk
IoA Director:	Paul Hewett	37507	Hoyle Rm 19	phewett(at)ast.cam.ac.uk
Director's Secretary:	Jeannette Gilbert	37538	Hoyle Rm 48	jyg(at)ast.cam.ac.uk
IoA Librarian:	Mark Hurn	37537	Obs Library Office	hurnm(at)ast.cam.ac.uk

Students should immediately notify the Course Coordinator if they encounter problems and for general guidance. Day to day queries may be handled by the Course Secretary.

General Information

It is hoped as a Part III Astrophysics student that you will feel part of the Institute of Astronomy and will participate in some of the activities that maintain its friendly and interactive atmosphere.

Coffee

The Institute of Astronomy staff have coffee (and tea) in the Hoyle building foyer from about 11.00 am. Part III Astrophysics students are invited to enjoy coffee with the staff and postgraduate students, although this may on occasions not be possible given the location and timing of Part III lectures. There is no charge for coffee for Part III Astrophysics students.

Food

There are a number of possibilities for lunchtime food provision. Snacks can be obtained on site from the vending machine located in the Hoyle building. On Wednesdays the Institute of Astronomy organises a bread and cheese lunch at 12.30 pm. This precedes the seminars. Off-site there are several possibilities for canteen style food (CMS and the Cavendish Laboratory) and a full range of meals at the Hauser Forum as well. Also sandwiches, salads, soup and hot drinks etc. can be bought from *Victoria's Van*, which arrives outside the IoA main entrance at approximately 13:10 Monday to Friday. The *Cambridge Blue* van arrives at 12.40 pm and sells just sandwiches and crisps/cakes.

Talks

There are a number of seminars of astronomical interest within various Cambridge departments. Students are encouraged to attend seminars, although the large number of possibilities implies that students need to be selective in those they attend. The Institute of Astronomy has two regular series of talks, the Wednesday lunchtime talks at 1.15 pm (which are preceded by bread and cheese lunch from 12.30 and which usually constitute 2 half-hour talks on specialised research topics) and the Colloquia (Thursdays at 4.30 pm during Full Term) which are preceded by tea at 4:00 pm and followed by wine at 5.30 pm. The Colloquia are hour-long talks that generally contain a larger review element, as well as presenting latest scientific results.

In addition, the Cavendish Astrophysics Seminar takes place at 4.30 pm on Tuesdays and informal lunchtime talks are held at DAMTP (Monday 1.00 pm for the Cambridge Cosmology and Astrophysics Lunch and Tuesday 1.00 pm for Astrophysical Fluid Dynamics and Nonlinear Patterns).

Commitments to lecture courses and project work mean that it is essential to be selective about which talks to attend. However, in addition to the benefits of attending a talk containing relevant subject matter, critical assessment of a number of talks offers the opportunity to gain direct experience of what does and does not, work when presenting material to a non-specialist audience. Such experience is likely to be of direct benefit when preparing the project oral presentation to the Examiners in the Easter Term.

The schedule of talks for the forthcoming week can be found on the IoA website.

Library

The Institute of Astronomy library holds 8 000 books and 11 000 volumes of astronomical periodicals. Part III students are encouraged to use the library facilities but may not sign out books. If you need any help ask the Librarian, Mark Hurn, who has an office in the library area in the Observatory Building.

Photocopying

There is a photocopier in the reprographic room (opposite the vending machines), another outside the Course Secretary's office in the Hoyle building and one in the main library in the Observatory building. Course-related copying is free of charge. For private copying there is a charge of 3p per A4 sheet.

Computing

Part III students are given full access to the Institute of Astronomy Science Cluster. A Common Terminal Area (CTA) is available for student use in the Observatory Building.

A 5-lecture "Introduction to Unix and Computing" course is given at the start of the Michaelmas Term in order to familiarise students with the operating system and use of the Science Cluster.

Keys

Part III students will be issued with a key (subject to a £10.00 deposit), enabling them out of hours access to the Institute of Astronomy.

Pigeonholes

Part III students are allocated pigeonholes in the Observatory Building (East Wing) which they are encouraged to check regularly for information about the course and about events in the Institute of Astronomy.

CMS Facilities

In the CMS, Part III Astrophysics students may use the large Part III Mathematics Room and the associated facilities. More details may be found in the Part III Mathematics Handbook.

Printing at DAMTP

Part III students are given a free allocation of printer credit for use on the PWF-MATHS printers at CMS. PWF-MATHS credit cannot be spent on UCS or college printers. Similarly, credits purchased at the UCS or in college cannot be used at CMS. If you run out of printer credit send an email to jm(at)ast.cam.ac.uk. You may be asked to explain why the standard allocation proved to be insufficient.

Please note that printing facilities are provided solely for academic use. Please use other printers in college or at the UCS for personal use. Note that non-academic use of printers, or unnecessary waste of paper (including large amounts of output left uncollected), may result in a charge being made.

CALENDAR

Note some details may be subject to change – please check the online version for updates.

(Please also refer to the calendar contained in the *Maths Part III Handbook* 2011-2012 pp 22 and 23 and the *NST Part III Astrophysics Course Guide* for further details)

*****Students offering a Part III Physics course for examination must complete and return their college examination forms by the appropriate deadline. Please ensure that one copy of the form is submitted to the Course Secretary in the Institute of Astronomy during Michaelmas Term. Further information about procedures for examination entries will be made available at the beginning of the Michaelmas Term. Specific information about the examination is given in notices put up on the Part III noticeboard outside the Pippard Lecture Theatre and students should make sure that they read these regularly. Please see the Reporter (about 18 November).

Date and Time	Subject	Venue/Details
MICHAELMAS TERM 2011		
OCTOBER		
Tue 4 October	Full MICHAELMAS term begins	
Tue 4 October 11.30 *(Please turn up about 20 mins early for photo. [Coffee from 11.00])*	Introductory meeting with Course Coordinator, and Computer Officer followed by Library Tour (Mark Hurn: Librarian)	Hoyle Committee Room
Wed 5 October 0930 and 1630	Maths Introductory Meeting at CMS Group Photograph and Welcome Drinks Party	CMS MR2
Thu 6 October	Michaelmas Term Lectures begin	CMS and Cavendish Laboratory (see lecture list)
Thu 6 October 14.00	First (of five) Computer Orientation Lectures with Jeremy Sanders	CTA Obs Building
Mon 10 October 14.00	2nd Computer Orientation Lecture with Jeremy Sanders	CTA Obs Building
Tues 11 October 14.00	3rd Computer Orientation Lecture with Jeremy Sanders	CTA Obs Building
Wed 12 October 14.00	4th Computer Orientation Lecture with Jeremy Sanders	CTA Obs Building
Th 13 October 14.00	5th Computer Orientation Lecture with Jeremy Sanders	CTA Obs Building
Fri 14 October (by 16.30)	Choice of two projects (in rank order) to Course Secretary	Hoyle Room 4
Tue 18 October (by email)	Notification of approval of project choice by Course Coordinator	
Mon 31 Oct 2.30-3.30pm	Progress meeting with Course Coordinator and Chair of Teaching Committee	Ryle Large Mtg Rm Kavli Building
NOVEMBER		
Fri 4 November	Provisional Maths Tripos entries. Confirm Physics Major Options -- email Judith Moss	jm(at)ast.cam.ac.uk
14 November	Deadline to enter for Physics Major Options examinations	
Wed 30 November	Last day of Michaelmas Term lectures	
DECEMBER		
Fri 2 December (no later than)	Interim Progress Report to be delivered to Course Secretary. Electronic version is acceptable (jm(at)ast.cam.ac.uk	Hoyle Room 4
Fri 2 December	Full Michaelmas Term ends	

LENT TERM 2012		
JANUARY		
Tue 17 January	Full LENT Term begins	
As soon as possible	Liaise with Project Supervisor to organize supervisions	As appropriate
January [SEE REPORTER and Dept of Physics]	14.00-16.00 Particle physics (NST3ET Major Topic 4)	TBC Examination Halls, New Museums Site
January [SEE REPORTER and Dept of Physics]	09.00-11.00 Physics of the Earth as a planet (NST3ET Major Topic 5)	Examination Halls, New Museums Site
Thu 19 January	Lent term lectures begin	CMS
MARCH		
During week commencing Mon 27 February?	Timetable for practice oral presentations to be received from Course Coordinator (via Course Secretary) by email. You are advised to check that your presentation works on the IoA digital system. Please contact Course Secretary [jm(at)ast.cam.ac.uk] to make arrangements in good time.	
Wed 14 March	Last day of Lent Term lectures	CMS
Thu or Fri 15/16 March 09.30-15.30	Practice oral presentation (20 mins for talk, 10 mins for questions). Project Coordinator, Project Supervisors part of audience (this constitutes final and 4th supervision of the Lent Term [i.e. 7th out of total of 8]).	TBA
Fri 16 March	Full Lent Term ends	
TBC Tues 27 March	Candidates receive examination entry forms to indicate choice of examination papers.	
EASTER TERM 2012		
APRIL		
Wed 18 April (not later than)	Draft of Final Project Report to be handed to Project Supervisor	
During week commencing Mon 23 April	Timetable for final oral presentations to be emailed during this period. (20 mins for talk and 10 mins for questions)	
Tues 24 April	Full EASTER Term begins	
AS EARLY AS POSSIBLE	You are advised to again make sure that your presentation works on the IoA digital system. Please contact Course Secretary [jm(at)ast.cam.ac.uk] to make arrangements in good time.	Hoyle Committee Room
Th 26 April 11.30	"How to give a Powerpoint Presentation" Craig Mackay	Sackler Lecture Theatre
MAY		
No later than Tues 1 May by 16.30	Final Project Report: Deliver 2 copies to Course Secretary, identified by name only (i.e. University Examinations Number must NOT appear anywhere in the report). Submit electronic file (declaration here) to Course Secretary [jm(at)ast.cam.ac.uk] by this deadline.	Hoyle Room 4/jm(at)ast.cam.ac.uk
Thurs or Fri 3/4 May	Formal, assessed, oral presentations to Part III Examiners	Hoyle Committee Room
Fri 4 May by NOON	Deadline for return of forms giving choice of examination papers : see correspondence from, Faculty Office Secretary (Amy Moir), CMS. (It is very important to copy the form to the Course Secretary - email is acceptable.)	Faculty Office, CMS
Tues 15 May 11.30-12.00	Feedback Meeting with members of Teaching Committee	Hoyle Committee Room

Wed 23 May	Easter Term Lectures end	CMS
	Part III Examinations - to be announced in "Reporter"	CMS - venue to be confirmed for all examinations
Thurs 31 May	Part III examinations begin	
JUNE		
Tues 12 June	Part III Examinations end	
Fri, 15 June	Full Easter Term ends	
Tues 19 June	NST Part III Astrophysics Examiners meeting	
Wed 20 June		
09.30	Examination results announced via CamSIS	
16.30	Examination results announced at Senate House	
From Wed 20 June: after 09.00	*Project Reports may be collected from Course Secretary. If not collected after Examinations the report will be sent to the address provided on the cover sheet.*	Hoyle Room 4