

754AA Bachelor of Science (Degree with Honours)

Year and Campus:	2011 - Parkville
CRICOS Code:	014791D
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Level:	Undergraduate
Duration & Credit Points:	100 credit points taken over 12 months full time. This course is available as full or part time.
Coordinator:	Professor Aleks Owczarek
Contact:	<p>Eastern Precinct Student Centre The Eastern Precinct (building 138) (between Doug McDonnell building and Eastern Resource Centre)</p> <p><i>Enquiries</i> Phone: 13 MELB (13 6352) Email: 13MELB@unimelb.edu.au (mailto:13MELB@unimelb.edu.au)</p>
Course Overview:	<p>Honours comprises advanced 400-level coursework and an individual research project designed to extend students' knowledge and skills. In particular, the honours programs offered by the Faculty of Science aim to enable students to define and solve problems relating to their speciality and to conduct research in the field.</p> <p>Honours graduates possess the skills and qualifications needed to progress to a higher degree such as a Master of Philosophy or Doctor of Philosophy, or to enter the science and technology industries.</p> <p>The Bachelor of Science (degree with Honours) (754AA) is only available in four disciplines, namely</p> <ul style="list-style-type: none"> # Computer Science # History and Philosophy of Science # Mathematics and Statistics # Physics <p>It is available only to students who have completed specific University of Melbourne Science degrees, namely</p> <ul style="list-style-type: none"> # Bachelor of Science (755) # BASc (113) # Any combined degree where one component is the Bachelor of Science (755). <p>Students who are considering Honours in other disciplines should look at the New Generation Bachelor of Science (Degree with Honours) (BH-SCI).</p> <p>The Bachelor of Information Systems (Degree with Honours) is also available (please refer to the separate entry for this course).</p>
Objectives:	<p>Honours is a "fourth-year" program which gives you the opportunity to draw together your previous science or technology studies and focus your knowledge, skills and intellect on an exciting piece of original research.</p> <p>Honours programs are comprised of two components:</p> <ul style="list-style-type: none"> # The advanced research project provides you with the chance to use your knowledge and technical skills on a research project. # The advanced coursework component continues the structured education of your previous undergraduate studies, allowing you to increase your knowledge in your particular areas of interest or expand the theoretical basis on which you will pursue your research work. <p>Investing the additional year at University required to complete Honours gives you the opportunity to draw together your early years of study and add significant value to your resume. Honours is very different from earlier undergraduate years, allowing and requiring a greater</p>

	<p>degree of independence and flexibility that will help develop the maturity and skills for transition to employment in a range of occupations and industries or a research higher degree.</p>
<p>Course Structure & Available Subjects:</p>	<p>The Bachelor of Science (Degree with Honours) program involves the completion of one or more advanced coursework subjects and a research project subject. The relative weighting of these subjects varies between departments.</p> <p>Each advanced coursework subject may entail 400-level lectures and tutorials, journal clubs, literature reviews, oral presentations, and other departmental activities. In some departments students enrol in a number of advanced coursework subjects. The research project subject comprises a research project completed under the guidance of an academic who specialises in your area of interest.</p> <p>Students' academic transcripts will record a separate result for each advanced coursework subject they undertake as part of the BSc (Honours) course, and the research project subject.</p> <p>Refer to the departmental entries below for more information. Separate entries are available for the Bachelor of Information Systems (Degree with Honours).</p> <p>Honours usually involves one year of full-time study between February and November. Some departments offer a two-year part-time honours program and some offer mid-year commencement. Further details are provided in the departmental entries that follow.</p> <p>Course Requirements</p> <p>To qualify for the BSc (Honours) degree students must:</p> <ul style="list-style-type: none"> # pass 100 points at the honours level (or a level deemed appropriate for an honours student); and # achieve an overall weighted average of at least 65 percent for their honours studies. <p>Some departments have hurdle requirements that must also be met.</p> <p>Students are not allowed to repeat an honours subject/component for which they have received a mark of less than 50 percent.</p>
<p>Majors/Minors/ Specialisations</p>	<p>Department of Computer Science and Software Engineering Department of Computer Science and Software Engineering</p> <p>The Department of Computer Science and Software Engineering offers the following honours programs:</p> <ul style="list-style-type: none"> # computer science; # Combined mathematics and statistics/computer science honours program. <p>The computer science program is described below.</p> <p>Computer science honours program</p> <p>Overview</p> <p>The honours program in computer science is designed to:</p> <ul style="list-style-type: none"> # provide an introduction to the process and practice of research in computer science; # enable the acquisition of current research skills in specific areas; # encourage the development of the ability to think critically and independently; # consolidate and extend the student's understanding of a range of aspects of the discipline of computer science; and # improve oral and written communication skills. <p>Admission requirements</p> <p>In addition to satisfying the Faculty of Science entry requirements, students interested in entering the computer science honours program must:</p> <ul style="list-style-type: none"> # have completed at least 50 points of 300-level computer science subjects; # have passed the subject 433-255 Logic and Computation; # have passed at least 25 points of 100-level mathematics or statistics subjects. <p>Applications will also be evaluated with regard to prerequisites for 400-level subjects, strength in areas related to research interests in the department, and overall academic strength.</p> <p>While 50 points of 300-level study in computer science is the minimum for entry to BSc (Honours), students should note that the 400-level honours subjects offered by the department</p>

have individual prerequisites that may not be satisfied by some combinations of 50 points of 300-level subjects. Students wishing to retain a wide range of options at the 400-level are advised to select at least four of: 433-303 Artificial Intelligence; 433-330 Theory of Computation; 433-341 Software Engineering Process and Practice; 433-351 Database Systems; 433-361 Programming Language Implementation; and 433-380 Graphics and Computation.

Study of mathematics or statistics at the second-year level is strongly recommended.

Students from other institutions and other backgrounds should contact the honours coordinator to determine their eligibility for entry to the BSc (Honours) course.

Honours coordinator

Dr Adrian Pearce

Duration and commencement of course

The BSc (Honours) program in computer science can be undertaken on a full-time or part-time basis, commencing in late February each year. The program requires one year of full-time study, or two years of part-time study.

Assessment

Hurdle assessment requirements

In addition to the honours degree Course requirements, students enrolled in the computer science BSc (Honours) program must pass 100 points of approved subjects, including the Computer Science Research Project, and must have a weighted average mark of at least 65 percent.

Students enrolled in the computer science honours program are also expected to have a satisfactory level of attendance at departmental seminars.

Students will be advised of hurdle requirements for the individual coursework subjects at the commencement of each subject.

Components of assessment

Honours comprises a research project subject and five advanced coursework subjects. These subjects with their relative weightings are as follows:

- # Computer Science Research Project subject = 37.5 percent
- # Advanced Coursework subjects: five at 12.5 points each = 62.5 percent

The final honours grade is the weighted average mark over the 100 points included in these two components.

Advanced coursework 62.5 points

Five subjects totalling 62.5 points, consisting of any study-level 0 or study-level 6 subjects taught by the Department, with the exception of the subjects listed below.

Students may also enrol in up to 25 points of subjects at the honours or masters level of study in cognate areas from outside the Department, subject to approval being granted by the Honours Coordinator.

Students are NOT allowed to enrol in the following project-based subjects as part of the 62.5 points of Advanced coursework subjects:

433-659 Distributed Computing Project
 433-690 IT Minor Research Project
 433-699 Minor Research Project
 433-440 Advanced Software Engineering Project
 433-603 Masters Software Engineering Project
 433-604 Masters Advanced Software Engineering Project

600-level computer science subjects

- # 433-620 Engineering for Internet Software Development (Sem 2)
- # 433-643 IT Project Management (Sem 1)
- # 433-652 Distributed Systems (Sem 1 and Sem 2)
- # 433-677 Networks and Parallel Processing (Sem 2)
- # 433-678 Cluster and Grid Computing (Sem 1)

Students are reminded that to be awarded the BSc (Honours) they must complete 100 points of approved subjects including an honours research project, and must achieve a weighted average over those subjects of at least 65 percent.

Research project

In addition to the advanced coursework, students must complete a total of 37.5 points of enrolment in the Computer Science Research Project subject.

The Computer Science Research Project subject comprises a research report of up to 40 pages (20 000 words) and an oral presentation not exceeding 30 minutes. Students are required to obtain a mark of at least 65 percent in this subject.

Further information

If you require further information about this honours program please contact:

Dr Adrian Pearce

Tel: +61 3 8344 1399

Email: adrianrp@unimelb.edu.au

Department of History and Philosophy of Science**History and Philosophy of Science honours program.****Overview**

Honours study in history and philosophy of science provides training at an advanced level in various aspects of the discipline, and prepares students with requisite background to proceed to postgraduate research.

Admission requirements

In addition to satisfying the Faculty of Science entry requirements, students interested in entering the history and philosophy of science honours program need to complete:

- # a minimum of 25 points of HPS subjects at 200-level;
- # a minimum of 37.5 points of HPS subjects at 300-level;
- # a grade average of H2B across five subjects in HPS at 200-level and 300-level.

Honours coordinator

Kristian Camilleri

Duration and commencement of course

This particular honours program may be undertaken on either a full-time or part-time basis, and a mid-year intake is offered. The program can be undertaken either between February and November or July and June. Students are advised to commence their supervised research projects during the non-instruction periods.

Students undertaking part-time study in HPS must complete the HPS thesis over two consecutive semesters.

Assessment**Hurdle assessment requirements**

Students must satisfy the honours degree Course requirements.

Components of assessment

Students undertaking Honours in HPS must complete the following:

- # 136-529 HPS Thesis (37.5 points)
- # Five 12.5 point honours subjects in HPS (totalling 62.5 points)

Advanced coursework

The advanced coursework component requires completion of five 12.5 point honours/postgraduate subjects, chosen in consultation with the HPS Honours coordinator. HPS advanced coursework subjects;

136-442 Directed Study (semester 1 and semester 2)

136-536 Scientific Realism and Anti-Realism (semester 2)

*other approved subjects

Honours students may take up to two existing Honours subjects offered in philosophy towards their fourth-year studies in history and philosophy of science. Subjects from the following list will be approved automatically. Other subjects may be approved on a case-by-case basis.

PHIL40005 Metaphysics and Epistemology (semester 2)

PHIL40013 Topics in Advanced Logic (semester 2)

Enrolment in all cases must be approved by the HPS Honours coordinator. No more than three philosophy and/or philosophy of science subjects may be taken as part of history and

philosophy of science honours. That is, pure honours in history and philosophy of science must include at least two subjects in an area other than the philosophy of science (or philosophy).

Thesis

The HPS Thesis subject requires completion of a 12,000-word thesis on an approved topic, carried out under the supervision of a member of the department. Students meet regularly with their supervisor over two consecutive semesters. The thesis is due at the end of the second semester of enrolment.

Further information

If you require further information about this honours program please contact:

Dr Kristian Camilleri

Tel: +61 3 8344 7573

Department of Mathematics and Statistics

Department of Mathematics and Statistics

The Department of Mathematics and Statistics offers the following honours programs:

- # mathematics and statistics;
- # combined mathematics and statistics/computer science;
- # combined mathematics and statistics/physics.

Information about these programs is provided below.

After completing honours, graduates wishing to pursue a non-academic career will have the advantage of the experience of project work and directed research not usually provided by a pass degree. Many employers view an honours degree as the minimal professional qualification. Students interested in further academic work will be well placed for entry into postgraduate programs at the University of Melbourne or other world-class institutions.

Mathematics and statistics honours program

Overview

The honours program in mathematics and statistics is designed to train graduates in advanced mathematics and statistics topics and to provide an opportunity for students to participate in research. The program involves completion of an advanced coursework subject and a research project subject.

Admission requirements

In addition to satisfying the Faculty of Science entry requirements, students willing to enter the mathematics and statistics honours program need to have attained an H3 or better in at least four 300-level mathematics/statistics subjects. Students who do not meet these requirements, but who have achieved very good results in other areas, may be considered for entry to honours on the recommendation of the head of the Department of Mathematics and Statistics.

Prospective honours students should refer to the suggested 300-level specialisation subjects for guidance in selecting their 300-level mathematics/statistics subjects. It is strongly recommended that more than four 300-level mathematics/statistics subjects are taken, since the number of options available at the 400-level would be restricted if only four 300-level mathematics/statistics subjects had been completed. If only four 300-level mathematics/statistics subjects are taken, at most one of 620-352 Graph Theory and 620-381 Computational Mathematics should be included.

To retain the widest possible choice of honours options, students are recommended to include the following subjects in second year: 620-295 Real Analysis with Applications or 620-252 Analysis, 620-231 Vector Calculus and at least two of 620-201 Probability, 620-202 Statistics, 620-297 Group Theory and Linear Algebra, 620-232 Mathematical Methods, and 620-290 Discrete Mathematics and Operations Research.

Recommendations in terms of the New Generation Subjects

First of all, it is strongly recommended that all students choose the following 200-level subjects: Real Analysis with Applications (or equivalent); Vector Calculus; Probability. Further, they should choose at least two of following the 200-level subjects: Group Theory with Linear Algebra; Dynamical Systems and Chaos; Discrete Mathematics and Operations Research; Statistics.

Specific 300-level recommendations related to the four specializations are listed below.

A. Pure Mathematics.

Essential: Group Theory with Linear Algebra; Complex Analysis; Algebra; Metric and Hilbert Spaces. Strongly recommended: at least three of the following, with one being essential

(excluding Partial Differential Equations): Graph Theory; Geometry; Discrete Mathematics; Partial Differential Equations.

B. Applied Mathematics and Mathematical Physics.

Essential: Dynamical Systems and Chaos; Complex Analysis; Numerical and Symbolic Mathematics; Partial Differential Equations. Strongly recommended: at least two of the following: Graph Theory; Discrete Mathematics; Stochastic Modelling.

C. Discrete Mathematics and Operations Research.

Essential: Discrete Mathematics and Operations Research; Complex Analysis; Decision Making and Discrete Mathematics. Also essential: at least two of the following: Techniques in Operations Research; Graph Theory; Stochastic Modelling.

D. Statistics and Stochastic Processes.

Essential: Statistics; Linear Statistical Models; Stochastic Modelling. Also essential: at least one of the following: Probability and Statistical Inference; Modern Applied Statistics. Strongly recommended: Complex Analysis. Statistics: To do honours in statistics, usually a student is required to do 620-301, 620-371 and 620-372. It is also recommended that students do 620-302 and 620-374.

Honours coordinator

Professor Omar Foda

Duration and commencement of course

This particular honours program can be undertaken on a full-time or part-time basis, and a mid-year intake is offered. The program can be undertaken either between February and November or July and June.

Assessment

Hurdle assessment requirements

Students must satisfy the honours degree Course requirements.

Components of assessment

Honours comprises a research project subject and an advanced coursework subject. These subjects with their relative weightings are as follows:

- # Mathematics and Statistics Research Project subject = 25 percent
- # Mathematics and Statistics Advanced Coursework subject = 75 percent

Advanced coursework

Students should select 6 x 12.5 point subjects from the following list in consultation with the Honours Coordinator: **Master of Science (Mathematics and Statistics) ([../view/2010/MC-SCIMAT](#))**

Each Master of Science (coursework) subject is one semester in length and comprises 36 contact hours. Full-time students are advised to undertake four Master of Science coursework subjects in the first semester and two Master of Science coursework subjects in the second semester.

In determining the final grade, only the best six advanced coursework subjects will be considered.

Research project

Honours students are required to conduct research under the supervision of their supervisors. Intending honours students should approach individual staff members to discuss possible research projects. Information about the department's research groups and possible supervisors can be found at the following websites respectively:

<http://www.ms.unimelb.edu.au/research/>

<http://www.ms.unimelb.edu.au/Students/supervisorList.php>

Any difficulties in reaching decisions about research topics should be discussed with the honours coordinator. Preliminary reading should commence in the first month of the program, with the bulk of the project being completed in the second half of the program.

Assessment of the research project will consider: clarity and exposition; mathematical accuracy; mathematical insight displayed; coverage of the field and references, and may be complemented by one or more of the following: description of the application and/or business context; mathematical modelling; presentation and analysis of numerical results.

Honours students will be required to give two seminars before their results are finalised, including one presentation on their research projects towards the end of the program. Honours students should consider themselves a part of the research strength of the department and view

departmental seminars as a method of broadening their knowledge. It is therefore expected that students will attend all research seminars in the broad area of their chosen field.

Further information

If you require further information about this honours program please contact the honours coordinators:

Department of Mathematics and Statistics

Tel: +61 3 8344 5550

Combined mathematics and statistics/physics honours program

Overview

This honours program is available only in consultation with the honours coordinators of both mathematics/statistics and physics. It is designed to train graduates in advanced mathematics/statistics and physics topics, and to provide an opportunity for students to participate in research.

The program involves completion of an advanced coursework subject and a research project subject.

Admission requirements

In addition to satisfying the Faculty of Science entry requirements, students should plan a course of study that is approved by both the mathematics/statistics and physics honours coordinators. An H3 average will be required in the subjects that are prerequisites for the honours level subjects the student plans to study.

Selection into the combined honours program must be endorsed by both departments.

Honours coordinator

Professor Omar Foda (Mathematics and Statistics)

Dr Nicole Bell (Physics)

Duration and commencement of course

This particular honours program can be undertaken on a full-time or part-time basis commencing at the start of semester one. Subject to the approval of both departments, an applicant who is able to devise an appropriate course plan in conjunction with both departments may be considered for mid-year entry.

Assessment

Hurdle assessment requirements

Students enrolled in honours need to obtain a minimum of 65 percent for both the research project subject and the advanced coursework subject.

Components of assessment

Honours comprises a research project subject and an advanced coursework subject. These subjects with their relative weightings are as follows:

- # Mathematics and Statistics and Physics Research Project subject = 25 percent
- # Mathematics and Statistics and Physics Advanced Coursework subject = 75 percent

Advanced coursework

Students should establish with the honours coordinators the relative weighting of each piece of mathematics/statistics or physics work that is required for this subject.

Research project

The research project is marked by two examiners appointed by the coordinators. Assessment of the research project will consider: clarity and exposition; mathematical accuracy; mathematical insight displayed; coverage of the field and references, and may be complemented by one or more of the following: description of the application and/or business context; mathematical modelling; presentation and analysis of numerical results.

Students are expected to submit a detailed outline of their research project by the end of their first semester of honours study. They are also required to give two seminars before their results are finalised, including one presentation on their projects towards the end of the program.

Honours students should consider themselves a part of the research strength of the departments and view departmental seminars as a method of broadening their knowledge. They are therefore expected to attend all research seminars in the broad area of their chosen field.

Further information

If you require further information about this honours program please contact the honours coordinators:

Department of Mathematics and Statistics

Tel: +61 3 8344 5550

Combined mathematics and statistics/computer science honours program**Overview**

This honours program is available only in consultation with the honours coordinators of both mathematics/statistics and computer science. It is designed to train graduates in advanced mathematics/statistics and computer science topics, and to provide an opportunity for students to participate in research.

The program involves completion of an advanced coursework subject and a research project subject.

Admission requirements

In addition to satisfying the Faculty of Science entry requirements, students should plan a course of study that is approved by both the mathematics/statistics and computer science honours coordinators and have completed the prerequisite subjects with at least an H3 average.

Selection into the combined honours program must be endorsed by both departments.

Honours coordinators

Professor Omar Foda (Mathematics and Statistics)

Dr Adrian Pearce (Computer Science)

Duration of course and commencement of course

This particular honours program can be undertaken on a full-time or part-time basis commencing at the start of semester one. Subject to the approval of both departments, an applicant who is able to devise an appropriate course plan in conjunction with both departments may be considered for mid-year entry.

Assessment**Hurdle assessment requirements**

Students must satisfy the honours degree Course requirements.

Components of assessment

Honours comprises a research project subject and an advanced coursework subject. These subjects with their relative weightings are as follows:

- # Mathematics and Statistics and Computer Science Research Project subject = 25 percent
- # Mathematics and Statistics and Computer Science Advanced Coursework subject = 75 percent

Advanced coursework

Students should establish, with the honours coordinators, the relative weighting of each piece of mathematics and statistics or computer science work that is required for this subject.

Research project

The research project is marked by two examiners appointed by the coordinators. Assessment of the research project will consider: clarity and exposition; mathematical accuracy; mathematical insight displayed; coverage of the field and references, and may be complemented by one or more of the following: description of the application and/or business context; mathematical modelling; presentation and analysis of numerical results.

Students are expected to submit a detailed outline of their research project by the end of their first semester of honours level study. They are also required to give two seminars before their results are finalised, including one presentation towards the end of the program.

Honours students should consider themselves a part of the research strength of the departments and view departmental seminars as a method of broadening their knowledge. They are therefore expected to attend all research seminars in the broad area of their chosen field.

Further information

If you require further information about this honours program please contact the honours coordinators:

Department of Mathematics and Statistics

Tel: +61 3 8344 5550

School of Physics

School of Physics

The School of Physics offers the following honours programs:

- # physics honours program;
- # Combined mathematics and statistics/physics honours program (described under Combined mathematics and statistics/physics honours program);

The physics program is described below.

Physics honours program

Overview

The honours program in physics is designed to:

- # enhance students' knowledge of physics on a broad front and to a professional level, and to allow students to develop their abilities to an international level for all career paths;
 - # introduce students to current research literature in specialised areas; and
 - # engage students in their own research by participation in the activities of a research group in the school.
- # on completion of the physics honours program, students will be able to:
- # demonstrate a knowledge and understanding of physics at a superior level;
 - # demonstrate an understanding of the process and practice of physics research;
 - # demonstrate individual and collaborative investigative skills;
 - # think critically, evaluate information and interpret experimental data and/or theoretical results;
 - # present research results both orally and in the written form; and
 - # understand and apply laboratory safety procedures.

Admission requirements

In addition to satisfying the Faculty of Science entry requirements, students interested in entering the physics honours program must have completed the four core 300-level physics subjects:

- # 640-321 Quantum Mechanics (Advanced) [or 640-341 Quantum Mechanics]
- # 640-322 Thermal Physics (Advanced) [or 640-342 Thermal Physics]
- # 640-323 Electrodynamics (Advanced) [or 640-343 Electrodynamics]
- # 640-353 Atomic, Molecular and Solid State Physics

PLUS completion of one of the following additional conditions:

1. 25 points of 300-level physics laboratory work; or
2. 12.5 points of 300-level physics laboratory work (ie. 640-393 or 640-394) and 25 points of 300-level mathematics selected from the following: 620-311 Metric Spaces, 620-312 Linear Analysis, 620-321 Algebra, 620-322 Topology, 620-331 Applied Partial Differential Equations, 620-332 Integral Transforms and Asymptotics, [03]620-341 Dynamical Systems and Chaos and 620-342 Industrial and Applied Mathematics;
3. 12.5 points of 200-level physics laboratory work (ie. 640-299) and 50 points of 300-level mathematics subjects selected from 620-311 Metric Spaces, 620-312 Linear Analysis, 620-321 Algebra, 620-322 Topology, 620-331 Applied Partial Differential Equations, 620-332 Integral Transforms and Asymptotics, [03]620-341 Dynamical Systems and Chaos and 620-342 Industrial and Applied Mathematics.

Note that undertaking the third means of satisfying the entry requirements is recommended for only those students with a strong background and genuine interest in mathematics. All students are urged to consult the School of Physics for advice regarding their 300-level course plans. Students entering honours in any of the above ways may apply to join any of the research groups within the School of Physics.

The Head of the School of Physics has the discretion to waive any of the above departmental requirements in special cases.

Honours coordinator

Dr Nicole Bell

Duration and commencement of course

This particular honours program can be undertaken on a full-time or part-time basis. The program commences in February and finishes in November. There is no mid-year intake.

Assessment**Hurdle assessment requirements**

Students must satisfy the honours degree Course requirements.

Components of assessment

Honours comprises a research project subject and an advanced coursework subject. These subjects with their relative weightings are as follows:

- # Physics Research Project subject = 50 percent
- # Physics Advanced Coursework subject = 50 percent

Research project

The research project subject comprises an original, supervised research project (experimental and/or theoretical) in one of the school's current fields: pure and applied nuclear physics (including photonuclear reactions, proton microprobe and microanalysis), gravitation, astrophysics, optics (with light, X-rays, neutrons, atoms), particle physics, atomic physics or solid state physics (including high-resolution electron microscopy and physics of materials). The assessment is based on a written report (main text of the order of 20 pages) and a 15-minute talk on the research done during the year. The talk will be presented to the School of Physics shortly after the report has been submitted.

Advanced coursework

All subjects are 12.5 points each. Students must take:

- # 640-610 Quantum Mechanics

Students should select three subjects from the following list in consultation with the Honours Coordinator:

- # 640-611 Quantum Field Theory
- # 640-614 General Relativity
- # 640-604 Statistical Mechanics
- # 640-615 Condensed Matter Physics
- # 640-613 Particle Physics
- # 640-612 Physical Cosmology
- # 640-603 Quantum and Advanced Optics

Information about these subjects can be found at <http://physics.unimelb.edu.au/Future-Students/Postgraduates/MSc-Physics>

Further information

If you require further information about this honours program please contact:

Dr Nicole Bell

Tel: +61 3 8344 3112

Email: n.bell@unimelb.edu.au

Entry Requirements:

It is available only to students who have completed specific University of Melbourne Science degrees, namely

- # Bachelor of Science (755)
- # BAsC (113)
- # Any combined degree where one component is the Bachelor of Science (755).

Students who have completed the Bachelor of Science (R01) are not eligible for this degree.

To be eligible to enter honours you must satisfy both the Faculty of Science entry requirements and the requirements of the department offering the honours program you wish to undertake. If you are interested in applying for an honours program it is critical to consider these requirements when planning your undergraduate course.

Faculty of Science entry requirements

	<p>There are two faculty entry requirements which must be satisfied:</p> <ol style="list-style-type: none"> 1. Admission to the BSc (Honours) requires completion of the BSc (755), BAsc (113). The only exception to this is for those applicants currently enrolled in a BSc combined course at the University of Melbourne. These applicants need to have completed at least 300 course points, within which the science requirements of their combined course need to have been satisfied. 2. Graduates of the University of Melbourne must normally have a Science Honours Score of at least 65 percent, see Faculty Honours Score. Applicants who have completed their degree at other institutions must demonstrate that they have achieved an average of 65 percent for the third year science subjects they have studied. <p>Faculty Honours Score</p> <p>To determine students' eligibility for admission to the honours programs of the Faculty of Science the faculty calculates a Science Honours Score (SHS) which is calculated as follows:</p> <ol style="list-style-type: none"> 1. For graduates of the BSc single degree, their SHS is the weighted average mark of their best 87.5 points of science study at 300-level. 2. For graduates of a BSc combined course or the BAsc, or students who are still enrolled in a BSc combined course and have completed at least 300 points within which the requirements of the BSc have been satisfied, their SHS is the weighted average mark of completed science subjects at 300-level, or their best 87.5 points of science study at 300-level, whichever is greater. For students and graduates of the BAsc and BA/BSc courses, History and Philosophy of Science subjects and Geography subjects must count towards the Arts component of their combined degree and therefore they are not considered in calculating their SHS. <p>Departmental Requirements</p> <p>Departments usually require the completion of certain 300-level subjects, and/or a minimum number of 300-level points from a particular department, to be eligible for entry into their honours program. These requirements are specified in the departmental entries.</p>
Core Participation Requirements:	It is University policy to take all reasonable steps to minimise the impact of disability upon academic study and reasonable steps will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact upon their active and safe participation in a subject are encouraged to discuss this with the relevant subject coordinator and the Disability Liaison Unit.
Further Study:	Graduates who successfully complete a Bachelor of Science (Honours) degree with the required average of 75% (H2A) are eligible to apply for admission to a M.Phil. - Science or PhD - Science.
Graduate Attributes:	Graduates will have:drawn together the theory and practical skills gained in previous undergraduate studies;developed new research and professional skills to take into the workforce or further study; andgained an in-depth knowledge in a particular discipline.
Links to further information:	http://www.science.unimelb.edu.au/future/home
Notes:	<p>Additional information about honours programs is available on the Faculty of Science website at the URL: http://www.science.unimelb.edu.au/future/home (http://www.science.unimelb.edu.au/future/home)</p> <p>Please contact the honours coordinator in the department/s of your choice for further information.</p>