



AUSTRALIAN RESEARCH COUNCIL

**RESEARCH INFRASTRUCTURE
(EQUIPMENT AND FACILITIES) PROGRAM (RIEFP)**

**GUIDELINES FOR APPLICANTS
1998 GRANTS**

November 1996

DEPARTMENT OF EMPLOYMENT, EDUCATION, TRAINING AND YOUTH
AFFAIRS

TABLE OF CONTENTS

1	
ACRONYMS.....	iii
Applications from single institutions for assistance to purchase a large item of equipment or major facility on a sole use basis are considered under the RIEFP. However, the onus is on the institution to convince the IGC selection panel that it is not appropriate or practicable for the equipment or facility to be shared by two or more institutions.....	3
5. TARGET GROUP.....	4
6. CROSS-PROGRAM ELIGIBILITY.....	4
7. FUNDS AVAILABLE IN 1998.....	4
8. APPLICATIONS FOR GRANTS.....	4
8.5 Formal Endorsement of Participating Institutions..	6
PROPOSALS MUST ARRIVE NO LATER THAN 16 JUNE 1997. PROPOSALS RECEIVED AFTER THAT DATE WILL NOT BE ACCEPTED. ALLOCATIONS ARE EXPECTED TO BE ANNOUNCED TOWARDS THE END OF THE YEAR.	8
9. FUNDING ARRANGEMENTS.....	8
10 OWNERSHIP OF ASSETS AND INTELLECTUAL PROPERTY.....	9
11. ROLES AND RESPONSIBILITIES IN THE SELECTION PROCESS	9
12. ACCOUNTABILITY.....	10
13. PRIVACY REQUIREMENTS.....	10
14. FREEDOM OF INFORMATION (FOI).....	11
15. EVALUATION.....	11
16. ADDRESS FOR SUBMISSIONS.....	11
FIELD OF RESEARCH CLASSIFICATION.....	13
Field of Research Classification, cont.....	13
Field of Research Classification, cont.....	14
Field of Research Classification, cont.....	15
Field of Research Classification, cont.....	16
Field of Research Classification, cont.....	17
Field of Research Classification, cont.....	18
Field of Research Classification, cont.....	19
Field of Research Classification, cont.....	20
Field of Research Classification, cont.....	22
Field of Research Classification, cont.....	24
SOCIO-ECONOMIC OBJECTIVE CLASSIFICATION.....	26
Socio-Economic Objective Classification, cont.....	26

ACRONYMS

ARC	Australian Research Council
CEO	Chief Executive Officer
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DEETYA	Department of Employment, Education, Training and Youth Affairs
EFTS	Equivalent Full Time Staff
EFTSU	Equivalent Full Time Student Unit
HEC	Higher Education Council
HEFA	Higher Education Funding Act
IAS	Institute of Advanced Studies
IGC	Institutional Grants Committee
FOI	Freedom of Information
NBEET	National Board of Employment, Education and Training
RIEFP	Research Infrastructure (Equipment and Facilities) Program
UNS	Unified National System

1. INTRODUCTION

The Commonwealth provides funding for research infrastructure in higher education institutions through the Research Quantum component of operating grants, the Research Infrastructure (Block Grants) Program and the Research Infrastructure (Equipment and Facilities) Program.

- *Research Infrastructure Block Grants* are allocated to members of the unified national system of higher education to assist in remedying deficiencies in research infrastructures on the basis of the National Competitive Grants Index;
- *Research Infrastructure (Equipment and Facilities) Program* grants encourage institutions to develop collaborative arrangements among themselves, across the higher education system as a whole and with organisations outside the sector. **The grants are intended primarily to support large scale cooperative initiatives involving two or more institutions.** Applications are considered from individual institutions for whom collaborative arrangements are impracticable or inappropriate.

2. OBJECTIVES OF THE RESEARCH INFRASTRUCTURE (EQUIPMENT AND FACILITIES) PROGRAM (RIEFP)

Funding is available through the RIEF program to support high quality research in higher education institutions. The program's main objectives are to:

- remedy deficiencies in current research infrastructure;
- enhance support for areas of research strength; and
- ensure that areas of recognised research potential, in which the institution has taken steps to initiate high quality research activity, have access to the support necessary for development.

Funding for this program is available for high quality research endeavour in all areas except clinical medicine and dentistry.

2.1 *Funding period*

Funding is for one year only and not recurrent, except under the following circumstances:

- Where international agreements are involved, long term funding will only be available where there are very significant benefits to Australia by way of multi year access to a major facility not otherwise available to Australians. The following will apply to such applications:
 - the maximum funding period sought must be identified in the initial application for funding
 - if funding is required for more than five years, the IGC will conduct a significant review of the program early in the fourth year and prior to the consideration of any application for further funding

- Where national facilities are involved, the following will apply:
 - the maximum funding period sought must be identified in the initial application for funding
 - if funding is required for more than three years, the IGC will conduct a significant review of the program early in the third year and prior to the consideration of any application for further funding
 - all bids for funding for programs for more than one year should include a strategy for moving to a program of full cost recovery from users.

3. DEFINITION OF RESEARCH INFRASTRUCTURE

Research infrastructure consists of the institutional resources essential for the mounting of high quality research projects or programs, including the indirect costs associated with particular projects or programs, but excluding direct costs which should be covered from other sources of funding. Research infrastructure is not necessarily restricted to institutional boundaries.

3.1 Elements Supported Under Research Infrastructure (Equipment and Facilities) Program (RIEFP)

Research infrastructure includes:

- non-capital aspects of facilities such as libraries, computing centres, centrifugation facilities, animal houses, herbaria, experimental farms; development of an existing facility as specialised space; equipment purchases and installation;
- salaries of research support staff (including research assistants and technicians) employed to provide research support for the proposal submitted or general support for activity in a given area (e.g. a research assistant providing assistance for a number of research projects). This support is limited to the initial, start-up period of the project.
- in the case of Australia's participation in significant international scale projects, consortium membership costs, travel to the facility and secretariat costs may also be regarded as infrastructure elements.

3.2 Elements Not Supported Under Research Infrastructure (Equipment and Facilities) Program (RIEFP)

The following are NOT regarded as elements of research infrastructure for the purpose of this program:

- capital works (ie the construction of buildings) as institutions receive operating grant funding for capital works;
- rental of accommodation;
- salaries of teaching and research and research only academic staff (including the cost of "buying time" to free such staff to do more research);

- salaries of staff supporting research at the institutional level (e.g., Deputy Vice-Chancellor Research, Research Grants Officer);
- postgraduate research students' stipends;
- travel costs directly associated with individual projects, with the exception of travel costs to allow participation in international consortiums.

Under this program funds must be targeted at concentrations of high quality research activity, generally within a number of institutions and not at the level of an individual research project or program. Such concentrations of activity may coincide with particular academic organisational units (AOU), or cells of research activity within an AOU, or may take the form of networks which cross traditional AOU boundaries.

4. OBJECTIVES AND SCOPE OF RESEARCH INFRASTRUCTURE (EQUIPMENT AND FACILITIES) PROGRAM (RIEFP)

In line with its policy of encouraging selectivity and concentration in research funding, the Government seeks to encourage higher education institutions to develop co-operative arrangements amongst themselves and with organisations outside the higher education sector, wherever possible. The increasing cost of research and research infrastructure makes it imperative that expensive facilities be shared to an increasing degree between institutions or on a national basis.

- The main objective of RIEFP is to fund relatively large scale initiatives to develop research infrastructure on a cooperative basis across groups of institutions or the higher education system as a whole. Proposals should nevertheless relate to high quality research activity and should be broadly in line with the research directions of the institution(s) involved.

4.1 Single Institution Applications

Applications from single institutions for assistance to purchase a large item of equipment or major facility on a sole use basis are considered under the RIEFP. However, the onus is on the institution to convince the IGC selection panel that it is not appropriate or practicable for the equipment or facility to be shared by two or more institutions.

5. TARGET GROUP

5.1 Eligibility Criteria

All institutions in the unified national system (UNS) and the Australian Maritime College are eligible to submit proposals.

Proposals must involve two or more higher education institutions which are members of the UNS except in the circumstances outlined in 4.1 above. Proposals also involving organisations other than members of the UNS, such as government research organisations and businesses, are encouraged provided that any equipment and facilities funds allocated must be used to build up infrastructure within the higher education institutions involved, not in the other organisations.

Applications are to be made by institutions rather than individuals. Peak bodies representing the higher education community may well act as catalysts in developing cooperative arrangements. In such cases the peak body may apply on behalf of, and with the full written agreement of, higher education institutions. Such applications must further identify the mechanism for accountability and distribution of the grant between the UNS members.

6. CROSS-PROGRAM ELIGIBILITY

Researchers involved in RIEFP applications are eligible to apply for Research Fellowships, Postgraduate awards, and ARC Large grants. The research projects for which an Equipment and Facilities application is made may include projects based in or located at a Special Research Centre or Key Centre of Teaching and Research.

If other applications have been submitted involving the same equipment, for example under the Large Grants Program, this must be indicated by providing a cross-reference to the title of the other application(s). (See No 5(a) in the proforma.)

7. FUNDS AVAILABLE IN 1998

Approximately \$20 million will be available for distribution through the RIEFP in 1998.

8. APPLICATIONS FOR GRANTS

It is recommended that institutions refer to the Report of the Selection Panel for 1997 Grants prior to preparing applications. The report is available at each institution's Research Office.

8.1 Assessment Criteria

Assessment will be based on the following criteria and applications should be organised under these headings:

Excellence of the researchers and research activity to be supported by the proposal

- Evidence must be provided to show that the researchers and the research are of high quality. Such evidence must include details of recent relevant publications, curriculum vitae and details of competitive grants held by the principal proponents.

Effectiveness of the co-operative arrangements between institutions including access and resource sharing

- The proposal should detail the nature and degree of co-operation involved between the collaborating institutions. Where possible (and relevant) applications should also detail past and present co-operation and **collaboration** between the institutions concerned . Where the proposal seeks an extension of existing equipment facilities and/or additional equipment for a facility previously funded under the program then the extent of the current usage should be set out.

The financial commitment to the proposal by each institution

- Proposals should provide evidence of institutional and other support for the proposal. Applicants who can demonstrate concrete commitment of money and support, and who are therefore seeking less than full funding from the Commonwealth under this program, may get preference in the distribution of funds. The proposal should be consistent with the institution's research management plan.

The need for and level of demand for the proposed equipment or facilities in Australia

- The proposal should indicate the relevance to national needs and priorities, and the availability of comparable infrastructure elsewhere in Australia.

Benefits of Research

In its Mission Statement the Australian Research Council identified five major benefits that flow to the community from research in the higher education sector.

All applications must include a statement as to how the proposed research will contribute to the achievement of these objectives. The five benefits are:

- *Contributions to the quality of our culture*
- *Graduates of high quality*
- *Direct applications of research results*
- *Increased institutional capacity for consulting, contract research or other service activities*
- *International links*

8.2 Applications

Applications can be made either jointly by two or more higher education institutions, by an appropriate peak body on behalf of certain institutions or by a single institution. Applications involving more than

one higher education institution must:

- be made jointly by all institutions involved in the proposal
- identify the principal proponent.

Applicants should note that proposals are considered by some non-specialist members of a committee and the project and its expected outcomes should be described in a way that can be understood by **ALL** committee members (both specialist and non-specialist).

Format of application

All applications must use the application proforma available from Research Offices in institutions and must adhere to the prescribed format, font size and page limitations. Applications will consist of (1) the proforma, (2) body of application and (3) Curriculum Vitae - in the prescribed format. See *Suggestions to Applicants* (Appendix 1).

- Applications are to include a one page Executive Summary (p2 pro forma) which provides details of the number of staff, postgraduate students and others using the equipment or facilities together with a five line summary suitable for publicity purposes.
- All pages in the application must be numbered consecutively including all appendices.
- Applications should include a table of contents referring to page numbers.
- Curriculums vitae including publication details must be **no longer than one page each**.

For a major facility or item of equipment, the application must

- set out a strategy for access to the facility/equipment by users in order to maximise its utilisation
- demonstrate that the location and environment being proposed is the most appropriate in terms of long term access and maintenance of the equipment.

Applications must address the assessment criteria in the order set out in 8.1 above and describe in detail the proposed initiative, its funding and the co-operative arrangements involved. Each proposal must address each criterion.

8.3 Equivalent Full Time Staff (EFTS)

Include **ONLY** the number of EFTS who are involved in the research, making consistent and significant use of the research facility/infrastructure.

8.4 Minimum Grant

The minimum grant under RIEFP would not normally be less than \$100,000.

8.5 Formal Endorsement of Participating Institutions

All applications must:

- be signed by the heads of participating institutions, or by the head/president/chair of the peak body

with the written endorsement of the head of each participating institution stating the proposed institution contribution, in cash and/or in kind. (see proforma, Appendix 2, Nos 16 and 17)

- nominate a single institution within the UNS which will, in the event that the application is successful, act as agent for the institutions involved for the purposes of the payment of the grant. (see proforma - Appendix 2, No 2)

The institution listed in the application as the administering institution is responsible for ensuring that the endorsements of all participating institutions are submitted with the application.

8.6 Letters of Support

are no longer required unless they specify cash or in kind support from bodies other than the lead or collaborating institution.

8.7 Field of Research and Socioeconomic Objective Classification

Field of Research (FOR) Indicate the *nature* of the research involved in the project using the **Field of Research** Classification described in attachment 3 (b). Allowance is made for identifying up to five different FORs for multi disciplinary projects. The percentage allocations should add to 100%. Given the nature of the judgments that have to be made in this process, proportional allocations should be made to the nearest multiple of 10.

Socio-Economic Objective Classification (SEO) Indicate, in your best judgment, the socio-economic sectors which are most likely to benefit from research either in the immediate or more distant future, using the **Socio-Economic** classification described in Attachment 3 (a). Allowance is made for identifying up to five different SEOs for those research projects which are likely to contribute benefits to more than one socio-economic sector.

Please reserve the Advancement of Knowledge sector in the SEO classification for that (part of the) research which is motivated purely for curiosity reasons and/or which is so generic in nature that it is not possible to prejudge the socio-economic sectors in which the research results are likely to be applied.

8.8 Ranking of Applications By Institutions

Institutions are no longer required to rank applications in order of priority.

8.9 Copies of Applications

An original plus twelve copies of the proposal and the attachments should be provided in A4 format. Copies must be double sided and in size 12 font. All applications must identify the name, address and telephone number of a suitable contact officer. Unbound late additional pages will not be accepted.

8.10 Changed Circumstances After Submission of Application

All details of an application and successful grants must be current. Applicants must inform the Research Branch, in writing, of any changes to an application as soon as possible so that accurate records can be maintained and panel members have an accurate application.

8.11 Reasons for Not Gaining a Grant

Applications are generally unsuccessful because the selection panel considers that the application is not competitive when compared against other applications. Each year the IGC selection panel prepare and circulate a selection panel report which provides general information on the selection process and why some applications were unsuccessful. Copies of this report are held by each institution's Research Office.

8.12 *Timetable*

PROPOSALS MUST ARRIVE NO LATER THAN **16 JUNE 1997**. PROPOSALS RECEIVED AFTER THAT DATE WILL NOT BE ACCEPTED. ALLOCATIONS ARE EXPECTED TO BE ANNOUNCED TOWARDS THE END OF THE YEAR.

December	1996	application forms available
Monday 16 June	1997	closing date for applications
August/September	1997	preparation of funding recommendations for ARC
early October	1997	ARC recommendations to Minister
late October/early November	1997	announcement of successful RIEFP projects and advice to applicants

8.13 *Selection*

Assessment of the applications is undertaken by the ARC's Institutional Grants Committee augmented as necessary, by appropriately qualified Research Grants Committee Large Grants Discipline Panel members. The IGC prepares funding recommendations which are submitted to the ARC and the Minister for approval.

8.14 *Appeals Mechanism*

The ARC has instituted an appeals mechanism for those applicants who believe their proposal has been unfairly treated in terms of the Council's selection procedures. Applicants wishing to appeal against a decision may do so by notifying the Chair of the ARC in writing. Appeals must be lodged **within twenty eight days** of the date of the letter notifying the result of the selection process. Appeals will be considered only against process issues and not against the selection panel's assessment of the relative merits of applications.

9. FUNDING ARRANGEMENTS

9.1 *Acceptance of Offers of Grants*

Institutions accepting offers of grant under the Equipment and Facilities Program are required to sign an *Acknowledgment* of the **Conditions of Grant** on behalf of the co-operating institutions. A copy of the Conditions of Grant will be attached to the letter of offer sent to the administering institution for each grant.

The *Acknowledgment* is the last page of the Conditions of Grant document and applies to **all** grants named in the letter of offer. Therefore, in cases where an institution is administering more than one grant under the Equipment and Facilities Program, only one *Acknowledgment* needs to be completed by the administering institution. The *Acknowledgment* must be completed and returned to DEETYA before payment of grants can commence.

9.2 Grant Payments

Infrastructure grants are paid as part of total payments to institutions and as determined under Section 111 of the *Higher Education Funding Act 1988*. Grants are made for the specified calendar year. Inability to spend or commit the grant through unforeseeable external circumstances should be dealt with according to "carry forward" requirements stated in these guidelines. Funds must only be used for purposes approved under the program otherwise they must be returned.

9.3 Carry Forward Request

No funds may be carried forward beyond 31 December of the year in which the grant was made without approval. Under the provisions of the *Higher Education Funding Act 1988*, funds which are committed prior to 31 December of the year of the grant are deemed to be spent (see Section 23(5)(b)). Therefore institutions which have made arrangements to commit funds for a particular purpose, prior to 31 December of the grant year, are not required to request permission to carry the funds forward. If the institution has not committed funds for a particular purpose a request to carry forward the funds must be submitted to reach the Department of Employment, Education, Training and Youth Affairs before 31 March of the year following the grant year. Carry forward requests must be submitted in writing (through the institution's research office) to the Director of the Institutional Grants Section. A request to carry forward funds must state the amount to be carried forward, the date to which the funds are to be carried forward and an explanation as to why the funds could not be spent during the year for which the grant was allocated.

9.4 Under Expenditure of Funds

If the entire grant amount cannot be spent for the purposes it was given, institutions must show the amount to be returned in the statement of income and expenditure. This amount will be recovered by the method described in 9.5 below.

9.5 Recovery of funds

Any funds which have not been spent or are not to be carried forward will be recovered by DEETYA after the reconciliation of the statement of income and expenditure has been completed. Institutions may send the appropriate amount by cheque or the amount will be recovered through the higher education payment system in accordance with Section 108 of the *Higher Education Funding Act*.

9.6 Additional Expenditure of Funds

Additional expenditure allocations cannot be accommodated once the grant announcements have been approved by the Minister. There are no additional funds available.

10 OWNERSHIP OF ASSETS AND INTELLECTUAL PROPERTY

Paragraph 6.2 of the Conditions of Grant document specifies that the ownership of any asset purchased wholly or partly with the grant shall be vested in the host institution and listed in its Assets Register. Paragraph 6.3 of the same document specifies that any intellectual property that arises from the use of the grant shall vest in the host institution or relevant staff in accordance with normal institutional practice.

11. ROLES AND RESPONSIBILITIES IN THE SELECTION PROCESS

11.1 The Minister

The infrastructure program has its legislative base in Section 23(1) of the *Higher Education Funding Act 1988* covering Special Research Assistance. Under this Section of the Act the Minister may approve a proposal for expenditure by an eligible institution on a program of research. The Minister approves the programs to be supported and the level of funding, in response to recommendations forwarded by the Australian Research Council.

11.2 The Australian Research Council

The Australian Research Council is responsible for making recommendations to the Minister on the allocation of research funding and postgraduate awards and for advising the Minister through the National Board of Employment, Education and Training on research policy matters. Section 27 of the *Employment, Education and Training Act 1988* is the legislative base for the activities of the Australian Research Council.

11.3 DEETYA Staff

Staff of the Research Branch of DEETYA administer funds provided under the *Higher Education Funding Act 1988*, including grants recommended by the ARC and approved by the Minister; they provide advice to the selection panel on the operation of the scheme and policy advice to the Minister. The Minister has delegated responsibility for approving certain subsequent financial arrangements, such as carry forward requests, to officers of the Department. DEETYA is responsible for the overall management of the RIEF Program.

12. ACCOUNTABILITY

12.1 Annual Reporting

Institutions are required to submit a report on the expenditure of the RIEFP funds by 31 March in the year after the calendar year for which they were awarded. Reporting should be in sufficient detail to show that funds have been applied for research infrastructure for equipment in the research areas for which they were awarded. The report should also highlight significant individual purchases, such as expensive items of equipment, and should provide an outline of how the infrastructure funding has contributed to developments in the research area supported and the outlook for the future. A proforma covering these matters will be available from your Research Office.

The submission of annual reports is a condition of offer. DEETYA reserves the right to suspend payment of further instalments of any current Equipment and Facilities Program grant until the annual report has been received. Annual reports are to be submitted as a separate document; it is not sufficient to provide a progress report within the new application.

As required by the Higher Education Funding Act, institutions should submit an audited financial statement of the expenditure of the grant by 30 June of the year following the grant.

13. PRIVACY REQUIREMENTS

The Department undertakes to meet the requirements of the Privacy Act in respect of the RIEF program. The information contained in the application will only be used to assess eligibility for a grant under the RIEFP program. At no time will names and addresses or any other personal information be passed to any agency or organisation outside DEETYA without the consent of the individual

concerned. Only Departmental officers or agents of the Department, who are actually carrying out tasks associated with program monitoring, assessment, management and administration, will have access to personal details of applicants.

14. FREEDOM OF INFORMATION (FOI)

All documents created in the process of establishing and managing the RIEF program are subject to FOI unless exempt in accordance with provisions of the FOI Act.

15. EVALUATION

The RIEF Program is among the programs included under the aegis of the Department's evaluation schedule of research programs. The evaluation of research programs is administered by the Research Branch of the Department with advice from the Australian Research Council.

16. ADDRESS FOR SUBMISSIONS

Applications for Equipment and Facilities Program funding should be sent to:

The Director	3rd Floor
Institutional Grants Section	Times Square Building
Research Branch	16 Mort Street
Department of Employment, Education, Training and Youth Affairs	OR CANBERRA ACT 2601
GPO Box 9880	Fax: (06) 240 9781
CANBERRA ACT 2601	Phone: (06) 240 9684

17. CONTACT POINT

Enquiries about the RIEFP and submissions may be addressed to: Claudia Greenham or Program Manager, Telephone, (06) 240 9699.

Research Branch
Higher Education Division

LIST OF APPENDICES

- | | |
|----------------|--|
| Appendix 1 | Suggestions to Applicants |
| Appendix 2 | Proforma to accompany 1998 Research Infrastructure (Equipment and Facilities Program) application |
| Appendix 3 (a) | Socio-Economic Objective Classification |
| Appendix 3 (b) | Field of Research Classification |

FIELD OF RESEARCH CLASSIFICATION

The following codes are the standard Field of Research Classification codes used by the Australian Bureau of Statistics to classify research activity in Australia.

Select the code most appropriate to your proposal and enter it under Question 3c on the front page of the application form.

The acronym n.e.c. refers to "not elsewhere classified".

SUBDIVISION 010000 MATHEMATICAL SCIENCES**010100 PURE MATHEMATICS**

- 010101 - Mathematical Logic, Set Theory, Number Theory, Group Theory
- 010102 - Algebraic Structures
- 010103 - Approximation Theory, Fourier Analysis, Harmonic Analysis, Potential Theory
- 010104 - Functional Theory, Operator Theory
- 010105 - Geometry, Topology
- 010199 - Pure Mathematics n.e.c.

010200 APPLIED MATHEMATICS

- 010201 - Numerical Analysis, Theory of Computation, Analysis of Algorithms
- 010202 - Differential Equations, Integral Equations
- 010203 - Optimisation, Control Theory
- 010204 - Classical Mechanics, Fluids, Optics, Electromagnetism
- 010299 - Applied Mathematics n.e.c.

010300 STATISTICS

- 010301 - Probability Theory
- 010302 - Stochastic Modelling and Analysis
- 010303 - Statistical Theory
- 010304 - Applied Statistics
- 010399 - Statistics n.e.c.

019900 OTHER MATHEMATICAL SCIENCES n.e.c.

- 019901 - Biomathematics
- 019999 - Mathematical Sciences n.e.c.

SUBDIVISION 020000 PHYSICAL SCIENCES**020100 ASTRONOMICAL SCIENCES**

- 020101 - Astronomy and Astrophysics
- 020102 - Cosmic Ray Physics
- 020199 - Astronomical Sciences n.e.c.

020200 THEORETICAL AND CONDENSED MATTER PHYSICS

- 020201 - Theoretical Physics
- 020202 - Condensed Matter Physics

Field of Research Classification, cont...

020300 ATOMIC, MOLECULAR, NUCLEAR, PARTICLE AND PLASMA PHYSICS

- 020301 - Atomic and Molecular Physics
- 020302 - Fluids, Plasmas and Electrical Discharges
- 020303 - Nuclear and Particle Physics
- 020399 - Atomic, Molecular, etc Physics n.e.c.

020400 ACOUSTIC AND OPTICAL PHYSICS

- 020401 - Acoustics and Opto-acoustical Physics
- 020402 - Optical and Opto-electrical Physics
- 020403 - Quantum Optics
- 020499 - Acoustic and Optical Physics n.e.c.

029900 OTHER PHYSICAL SCIENCES

- 029901 - Biophysics
- 029902 - Medical Physics
- 029903 - Instruments and Techniques
- 029999 - Physical Sciences n.e.c.

SUBDIVISION 030000 CHEMICAL SCIENCES

030100 PHYSICAL CHEMISTRY (Incl. Theoretical and Structural)

- 030101 - Chemical Thermodynamics and Energetics
- 030102 - Chemistry of Catalysis
- 030103 - Polymer Chemistry
- 030104 - Colloid and Surface Chemistry
- 030105 - Chemical Spectroscopy
- 030106 - Structural Chemistry
- 030107 - Mechanisms of Reactions
- 030108 - Theoretical Chemistry
- 030109 - Electrochemistry
- 030199 - Physical Chemistry n.e.c.

030200 INORGANIC CHEMISTRY

- 030201 - Transition Metal Chemistry
- 030202 - Main Group Chemistry
- 030203 - Solid State Chemistry
- 030204 - Bioinorganic Chemistry
- 030299 - Inorganic Chemistry n.e.c.

030300 ORGANIC CHEMISTRY

- 030301 - Organic Chemical Synthesis
- 030302 - Biological and Medical Chemistry
- 030303 - Physical Organic Chemistry
- 030399 - Organic Chemistry n.e.c.

030400 ANALYTICAL CHEMISTRY

- 030401 - Instrumentational Methods
- 030402 - Chemical and Physical Methods
- 030403 - Immunological and Bioassay Methods
- 030499 - Analytical Chemistry n.e.c.

Field of Research Classification, cont...

039900 OTHER CHEMICAL SCIENCES

- 039901 - Organometallic Chemistry
- 039902 - Environmental Chemistry (including Atmospheric Chemistry)
- 039903 - Industrial Chemistry

039999 - Chemical Sciences n.e.c.

SUBDIVISION 040000 EARTH SCIENCES

040100 GEOLOGY

040101 - Mineralogy and Crystallography
040102 - Igneous and Metamorphic Petrology
040103 - Vulcanology
040104 - Sedimentology
040105 - Petroleum Geology
040106 - Ore Deposit Petrology
040107 - Structural Geology
040108 - Geotectonics
040109 - Geochronology
040110 - Biostratigraphy
040111 - Palaeontology
040112 - Palynology
040113 - Geomorphology
040114 - Glaciology
040199 - Geology n.e.c.

040200 GEOPHYSICS

040201 - Gravity
040202 - Geomagnetism
040203 - Electromagnetism
040204 - Petrophysics
040205 - Explosion Seismology and Stratigraphy
040206 - Earthquake Seismology
040207 - Radiometrics
040299 - Geophysics n.e.c.

040300 GEOCHEMISTRY

040301 - Geochronology and Isotope Geochemistry
040302 - Exploration Geochemistry
040303 - Organic Geochemistry n.e.c
040304 - Inorganic Geochemistry n.e.c
040399 - Geochemistry n.e.c.

040400 OCEANOGRAPHY

040401 - Biological Oceanography
040402 - Chemical Oceanography
040403 - Physical Oceanography
040499 - Oceanography n.e.c.

Field of Research Classification, cont...

040500 HYDROLOGY

040501 - Groundwater Hydrology
040502 - Surfacewater Hydrology
040599 - Hydrology n.e.c.

040600 ATMOSPHERIC SCIENCES

040601 - Meteorology
040602 - Climatology (including Palaeoclimatology)
040603 - Ionospheric and Magnetospheric Physics
040699 - Other Atmospheric Sciences n.e.c.

049900 OTHER EARTH SCIENCES

- 049901 - Physical Geography
- 049902 - Environmental Management and Rehabilitation
- 049999 - Earth Sciences n.e.c.

SUBDIVISION 050000 INFORMATION, COMPUTERS AND COMMUNICATION TECHNOLOGIES

050100 INFORMATION SYSTEMS AND TECHNOLOGIES

- 050101 - Computer Systems Organisation
- 050102 - Information Systems Management
- 050103 - Artificial Intelligence and Expert Systems
- 050104 - Parallel Processing and Architecture
- 050105 - Computer Graphics
- 050106 - Image Processing
- 050107 - Speech Recognition
- 050108 - Cognitive Science
- 050199 - Information Systems and Technologies n.e.c.

050200 COMPUTER HARDWARE

- 050201 - Arithmetic and Logic Structures
- 050202 - Memory Structures
- 050203 - Input, Output and Data Communications
- 050204 - Logic Design
- 050205 - Integrated Circuits
- 050299 - Computer Hardware n.e.c.

050300 COMPUTER SOFTWARE

- 050301 - Programming Techniques
- 050302 - Software Engineering
- 050303 - Computer Languages
- 050304 - Operating Systems
- 050399 - Computer Software n.e.c.

050400 COMMUNICATION TECHNOLOGIES

- 050401 - Antenna Technology
- 050402 - Optical Systems
- 050403 - Digital Systems
- 050404 - Radio Communications and Broadcasting n.e.c.
- 050405 - Microwave and Millimetrewave Technology

Field of Research Classification, cont...

- 050499 - Communication Technologies n.e.c.

059900 OTHER INFORMATION, COMPUTERS AND COMMUNICATION TECHNOLOGIES

- 059901 - Mathematics of Computing
- 059902 - Computer-Human Interface
- 059903 - Virtual Reality and Related Simulation
- 059999 - Information, Computers and Communication Technologies n.e.c.

SUBDIVISION 060000 APPLIED SCIENCES AND TECHNOLOGIES

060100 AEROSPACE TECHNOLOGIES AND ENGINEERING

- 060101 - Avionics
- 060102 - Aeronautical Engineering
- 060103 - Remote Sensing
- 060104 - Satellite Technology
- 060199 - Aerospace Technologies and Engineering n.e.c.

060200 MANUFACTURING AND PROCESS TECHNOLOGIES AND ENGINEERING

- 060201 - Robotics and Mechatronics
- 060202 - Flexible Manufacturing Systems
- 060203 - CAD/CAM systems
- 060204 - Control Engineering
- 060205 - Welding Sciences
- 060206 - Textile Technology
- 060207 - Membrane and Separation Technologies
- 060299 - Manufacturing and Process Technologies n.e.c.

060300 INDUSTRIAL BIOTECHNOLOGY AND FOOD SCIENCES

- 060301 - Fermentation, Biotechnology and Industrial Microbiology
- 060302 - Packaging, Storage and Transportation
- 060303 - Safety and Quality
- 060304 - Food Engineering
- 060305 - Food Processing
- 060399 - Industrial Biotechnology and Food Sciences n.e.c.

060400 MATERIAL SCIENCES AND TECHNOLOGIES

- 060401 - Pyrometallurgy
- 060402 - Hydrometallurgy
- 060403 - Extractive Metallurgy n.e.c.
- 060404 - Physical Metallurgy
- 060405 - Ceramics
- 060406 - Polymer and Textile Compounds
- 060407 - Composite Materials
- 060408 - Alloy Materials
- 060409 - Optical Materials
- 060410 - Biomaterials
- 060411 - Superconducting Materials
- 060499 - Material Sciences and Technologies n.e.c.

Field of Research Classification, cont...

069900 OTHER APPLIED SCIENCES AND TECHNOLOGIES

- 069901 - Building Science
- 069902 - Laser Technology
- 069903 - Biosensor Technologies
- 069999 - Applied Sciences and Technologies n.e.c.

SUBDIVISION 070000 GENERAL ENGINEERING

070100 MECHANICAL AND INDUSTRIAL ENGINEERING

- 070101 - Mechanical Engineering
- 070102 - Industrial Engineering

070200 CHEMICAL ENGINEERING

- 070201 - Chemical Engineering Design
- 070202 - Process Control and Simulation
- 070203 - Fluidization and Fluid Mechanics
- 070204 - Heat and Mass Transfer Operations
- 070299 - Chemical Engineering n.e.c.

070300 MINING AND MINERAL PROCESSING

- 070301 - Mining Engineering
- 070302 - Mineral Processing

- 070303 - Petroleum and Reservoir Engineering
- 070304 - Geomechanics
- 070399 - Mining and Mineral Processing n.e.c.

070400 CIVIL ENGINEERING

- 070401 - Structural Engineering
- 070402 - Surveying
- 070403 - Water and Sanitary Engineering
- 070404 - Transport Engineering
- 070405 - Agricultural Engineering
- 070499 - Civil Engineering n.e.c.

070500 ELECTRICAL AND ELECTRONIC ENGINEERING

- 070501 - Electrical Engineering (General)
- 070502 - Electronics Engineering

079900 OTHER GENERAL ENGINEERING

- 079901 - Biomedical Engineering
- 079902 - Power Engineering
- 079903 - Combustion and Fuel Engineering
- 079999 - General Engineering n.e.c.

SUBDIVISION 080000 BIOLOGICAL SCIENCES

(Programs undertaken in a medical context should be classified in Division 100000, 'Medical and Health Sciences')

Field of Research Classification, cont...

080100 BIOCHEMISTRY

- 080101 - Biochemistry of Nucleic Acids
- 080102 - Biochemistry of Proteins and Peptides
- 080103 - Biochemistry of Carbohydrates
- 080104 - Biochemistry of Lipids
- 080105 - Biosynthetic Pathways
- 080199 - Biochemistry n.e.c.

080200 GENETICS, MOLECULAR BIOLOGY AND BIOTECHNOLOGY

- 080201 - Molecular Genetics
- 080202 - Cytogenetics
- 080203 - Population Genetics
- 080204 - Genetic Engineering: Gene Probes
- 080205 - Genetic Engineering: Recombinant DNA Techniques
- 080206 - Genetic Engineering n.e.c.
- 080207 - Molecular Cell Biology
- 080299 - Genetics, Molecular Biology and Biotechnology n.e.c.

080300 MICROBIOLOGY

- 080301 - Bacteriology
- 080302 - Parasitology
- 080303 - Virology
- 080399 - Microbiology n.e.c.

080400 BOTANY

- 080401 - Plant Taxonomy
- 080402 - Plant Physiology
- 080403 - Mycology

080404 - Plant Pathology
080405 - Phycology
080499 - Botany n.e.c.

080500 ZOOLOGY

080501 - Animal Taxonomy
080502 - Neurobiology
080503 - Physiology
080504 - Immunology
080505 - Anatomy and Histology
080506 - Ethology
080507 - Entomology
080599 - Zoology n.e.c.

080600 ECOLOGY

080601 - Freshwater Ecology (excl. Limnology)
080602 - Limnology
080603 - Marine Ecology
080604 - Terrestrial Ecology
080605 - Palaeoecology
080699 - Ecology n.e.c.

Field of Research Classification, cont...

089900 OTHER BIOLOGICAL SCIENCES

089901 - Evolutionary Biology
089902 - Cell Structure and Membrane Biology
089903 - Marine Biology
089999 - Biological Sciences n.e.c.

SUBDIVISION 090000 AGRICULTURAL SCIENCES

090100 SOIL AND WATER SCIENCES

090101 - Soil Physics
090102 - Soil Biology
090103 - Soil Chemistry
090104 - Soil and Land Degradation
090105 - Applied Hydrology (Drainage, Flooding, Irrigation, Quality etc)
090199 - Soil and Water Sciences n.e.c.

090200 CROP AND PASTURE PRODUCTION

090201 - Crop and Pasture Physiology
090202 - Crop and Pasture Nutrition
090203 - Crop and Pasture Pathology
090204 - Plant Breeding
090205 - Plant Protection (Pests and Pathogens)
090206 - Agronomy
090207 - Post Harvest Technologies (Transportation and Storage)
090208 - Weed Sciences
090299 - Crop and Pasture Production n.e.c.

090300 HORTICULTURE

090301 - Fruit Crops
090302 - Floriculture and Ornamental Horticulture
090303 - Oenology and Viticulture
090304 - Vegetable Culture
090399 - Horticulture n.e.c.

090400 ANIMAL PRODUCTION

- 090401 - Animal Breeding
- 090402 - Animal Reproduction
- 090403 - Animal Nutrition
- 090404 - Animal Husbandry
- 090405 - Animal Protection (Pests and Pathogens)
- 090406 - Animal Growth and Development
- 090499 - Animal Production n.e.c.

090500 VETERINARY SCIENCES

- 090501 - Epidemiology
- 090502 - Physiology
- 090503 - Pathology
- 090504 - Bacteriology
- 090505 - Parasitology
- 090506 - Virology
- 090507 - Surgery

Field of Research Classification, cont...

- 090508 - Pharmacology
- 090599 - Veterinary Sciences n.e.c.

090600 FORESTRY SCIENCES

- 090601 - Breeding
- 090602 - Pests, Health and Diseases
- 090603 - Management and Environment
- 090604 - Fire Management
- 090605 - Wildlife and Habitat Management
- 090606 - Agroforestry
- 090699 - Forestry Sciences n.e.c.

090700 FISHERIES SCIENCES

- 090701 - Marine Fisheries
- 090702 - Marine Aquaculture
- 090703 - Inland Water Fisheries and Aquaculture
- 090799 - Fisheries Sciences n.e.c.

099900 OTHER AGRICULTURAL SCIENCES

- 099901 - Fertilisers and Agrochemicals (Application etc)
- 099902 - Agricultural Systems and Farm Management
- 099999 - Agricultural Sciences n.e.c.

SUBDIVISION 100000 MEDICAL AND HEALTH SCIENCES

(See also 'Biological Sciences': Only programs with direct medical relevance should be classified as 'Medical and Health Sciences')

100100 IMMUNOLOGY

- 100101 - Allergy
- 100102 - Cellular Immunology
- 100103 - Humoral Immunology and Immunochemistry
- 100104 - Immunogenetics
- 100105 - Transplantation Immunology
- 100106 - Tumor Immunology
- 100199 - Immunology n.e.c.

100200 - Clinical Chemistry

- 100202 - Medical Biochemistry: Carbohydrates

- 100203 - Medical Biochemistry: Lipids
- 100204 - Medical Biochemistry: Nucleic Acids
- 100205 - Medical Biochemistry: Proteins and Peptides
- 100299 - Medical Biochemistry and Clinical Chemistry n.e.c.

100300 MEDICAL MICROBIOLOGY

- 100301 - Bacteriology
- 100302 - Parasitology
- 100303 - Virology
- 100399 - Medical Microbiology n.e.c.

100400 PHARMACOLOGY

- 100401 - Basic Pharmacology
- 100402 - Clinical Pharmacology and Therapeutics
- 100403 - Toxicology
- 100499 - Pharmacology n.e.c.

100500 PHYSIOLOGY

- 100501 - Human Biophysics
- 100502 - Cell Physiology
- 100503 - Systems Physiology
- 100504 - Comparative Physiology
- 100599 - Physiology n.e.c.

100600 NEUROSCIENCES

- 100601 - Autonomic Nervous System
- 100602 - Central Nervous System
- 100603 - Peripheral Nervous System
- 100604 - Cellular Nervous System
- 100605 - Sensory Systems
- 100699 - Neurosciences n.e.c.

100700 CLINICAL SCIENCES

- 100701 - Anaesthesia
- 100702 - Dermatology
- 100703 - Cardiology
- 100704 - Dentistry and Oral Surgery
- 100705 - Endocrinology
- 100706 - Foetal Development and Medicine
- 100707 - Gastroenterology and Hepatology
- 100708 - Gerontology and Geriatrics
- 100709 - Haematology
- 100710 - Intensive Care
- 100711 - Infectious Diseases
- 100712 - Medical Genetics
- 100713 - Nephrology and Urology
- 100714 - Neurology and Neuromuscular Disease
- 100715 - Obstetrics and Gynaecology
- 100716 - Oncology and Carcinogenesis
- 100717 - Ophthalmology and Optometry
- 100718 - Orthopaedics
- 100719 - Otolaryngology
- 100720 - Paediatrics and Child Health
- 100721 - Pathology
- 100722 - Psychiatry
- 100723 - Psychology - Clinical
- 100724 - Radiology and Organ Imaging
- 100725 - Radiotherapy and Nuclear Medicine

- 100726 - Rehabilitation and Therapy: Occupational and Physical
- 100727 - Rehabilitation and Therapy: Hearing and Speech
- 100728 - Reproduction
- 100729 - Respiratory Disease
- 100730 - Rheumatology and Arthritis
- 100731 - Surgery
- 100732 - Venereology
- 100799 - Clinical Sciences n.e.c.

100800 PUBLIC HEALTH

- 100801 - Environmental and Occupational Health and Safety
- 100802 - Epidemiology and Health Information Systems
- 100803 - Mental Health
- 100804 - Nutrition
- 100805 - Preventive Medicine
- 100806 - Primary Health Care
- 100899 - Public Health n.e.c.

100900 HEALTH SERVICES RESEARCH

- 100901 - Human Bioethics
- 100902 - Health and Community Services Research and Evaluation
- 100903 - Health Care Administration
- 100904 - Health Economics
- 100905 - Health Education and Promotion
- 100906 - Nursing
- 100999 - Health Services Research n.e.c.

109900 OTHER MEDICAL AND HEALTH SCIENCES

- 109901 - Biomechanics
- 109902 - Medical Biotechnology
- 109999 - Medical and Health Sciences n.e.c.

SUBDIVISION 110000 SOCIAL SCIENCES

110100 ACCOUNTING AND FINANCE

- 110101 - Financial and Management Accounting
- 110102 - Auditing and Accountability
- 110103 - Finance
- 110199 - Accounting and Finance n.e.c.

110200 ECONOMICS

- 110201 - Economic Theory
- 110202 - Economic History and Political Economy
- 110203 - International Economics
- 110204 - Monetary and Fiscal Theory
- 110205 - Welfare Economics
- 110206 - Health Economics
- 110207 - Labour Economics
- 110208 - Industry and Resource Economics
- 110209 - Agricultural Economics
- 110210 - Econometrics
- 110211 - Economic Models and Forecasting
- 110212 - Environment Economics
- 110299 - Economics n.e.c.

Field of Research Classification, cont...

110300 BUSINESS STUDIES

- 110301 - Business Management
- 110302 - Industrial Relations
- 110303 - Marketing
- 110399 - Business Studies n.e.c.

110400 POLITICAL SCIENCES AND PUBLIC POLICY

- 110401 - Political Science
- 110402 - Public Policy and Administration
- 110403 - International Relations
- 110404 - Science and Technology Policy
- 110499 - Political Sciences and Public Policy n.e.c.

110500 ARCHITECTURE AND URBAN ENVIRONMENT

- 110501 - Architecture
- 110502 - Urban Planning
- 110503 - Heritage and Conservation
- 110599 - Architecture and Urban Environment n.e.c.

110600 SOCIOLOGY

- 110601 - Social Theory and Policy
- 110602 - Race and Ethnic Relations
- 110603 - Criminology
- 110699 - Sociology n.e.c.

110700 ANTHROPOLOGY

- 110701 - Prehistory and Physical Anthropology
- 110702 - Aboriginal Anthropology
- 110799 - Anthropology n.e.c.

110800 SOCIAL STUDIES

- 110801 - Women's Studies
- 110802 - Urban and Regional Studies
- 110803 - Social Work and Administration
- 110899 - Social Studies n.e.c.

110900 HUMAN GEOGRAPHY

- 110901 - Economic Geography
- 110902 - Social and Cultural Geography
- 110903 - Recreation and Leisure Studies
- 110999 - Human Geography n.e.c.

111000 POPULATION STUDIES

- 111001 - Population Trends and Policies (incl. Fertility and Mortality)
- 111002 - Migration
- 111099 - Population Studies n.e.c.

111100 LAW

- 111101 - Constitutional and Administration Law
- 111102 - Jurisprudence and Legal History
- 111103 - Family Law
- 111104 - Commercial and Contracts Law
- 111105 - International Law
- 111106 - Criminal Law
- 111199 - Law n.e.c.

111200 PSYCHOLOGY

- 111201 - Cognition, Motivation and Performance

- 111202 - Learning, Memory and Perception
- 111203 - Biological Psychology, Neuropsychology and Psychopharmacology
- 111204 - Personality, Abilities and Assessment
- 111205 - Social and Organisational Psychology
- 111206 - Developmental Psychology and Ageing
- 111207 - Quantitative Psychology and Methodology
- 111299 - Psychology n.e.c.

111300 EDUCATION

- 111301 - Educational Psychology and Curriculum Development
- 111302 - History and Philosophy of Education
- 111303 - Sociology of Education
- 111304 - Post Secondary Education
- 111305 - Teacher Education
- 111306 - Educational Administration and Theory
- 111399 - Education n.e.c.

111400 MEDIA AND COMMUNICATION STUDIES

- 111401 - Media Studies
- 111402 - Journalism
- 111403 - Librarianship and Information Studies
- 111499 - Media and Communication Studies n.e.c.

119900 OTHER SOCIAL SCIENCES

- 119999 - Other Social Sciences n.e.c.

SUBDIVISION 120000 HUMANITIES

120100 LANGUAGE AND LITERATURE

- 120101 - Literary Studies: Australian
- 120102 - Literary Studies: Asia and Pacific
- 120103 - Literary Studies: British
- 120104 - Literary Studies: European
- 120105 - Literary Studies: North American
- 120106 - Literary Theory and Genre Studies
- 120107 - Other Literary Studies n.e.c.
- 120108 - Lexicography
- 120109 - Applied Linguistics
- 120110 - Semantics

Field of Research Classification, cont..

- 120111 - Linguistics: Studies of Australian Aboriginal Languages
- 120112 - Linguistics: Other Australian Studies
- 120113 - Linguistics n.e.c.
- 120199 - Language and Literature n.e.c.

120200 HISTORICAL STUDIES

- 120201 - History: Australian
- 120202 - History: Asian and Pacific
- 120203 - History: American
- 120204 - History: British
- 120205 - History: European
- 120206 - History: Middle Eastern
- 120206 - History: Other
- 120207 - Biography
- 120299 - Historical Studies n.e.c.

120300 ARCHEOLOGY AND CLASSICAL STUDIES

- 120301 - Archeology

120302 - Egyptology
120303 - Greek and Roman Classical Studies
120399 - Classical Studies and Archeology n.e.c.

120400 ARTS

120401 - Music
120402 - Fine Arts
120403 - Drama
120499 - Arts n.e.c.

120500 DESIGN STUDIES

120501 - Design History and Conservation
120502 - Design Theory
120503 - Design Innovation
120504 - Design Management and Practice
120599 - Design Studies n.e.c.

120600 PHILOSOPHY

120601 - Logic
120602 - Metaphysics
120603 - Ethics
120604 - Social and Applied Philosophy
120699 - Philosophy n.e.c.

120700 RELIGIOUS STUDIES

120701 - Religious Studies

120800 HISTORY AND PHILOSOPHY OF SCIENCE AND MEDICINE

120801 - History and Philosophy of Science
120802 - History and Philosophy of Medicine

129900 OTHER HUMANITIES

129999 - Other Humanities n.e.c.

SOCIO-ECONOMIC OBJECTIVE CLASSIFICATION

DIVISION 1 DEFENCE

010000 **Defence**

DIVISION 2 ECONOMIC DEVELOPEMT

020000 Plant products and plant primary products

020100 Field crops

020200 Horticultural crops

020300 Forestry

020400 Primary products from plants

030000 Animal production and animal primary products

030100 Livestock

030200 Pasture, browse and fodder crops

030300 Fishing

030400 Primary products from animals

040000 Mineral Resources (excl energy)

040100 Exploration

040200 Primary mining and extraction processes

040300 First stage treatment of ores and minerals

050000 Energy resources

050100 Exploration

050200 Mining and extraction

050300 Preparation and supply of energy source minerals

059900 Other

060000 Energy supply

060100 Energy transformation

060200 Renewable energy

060300 Energy distribution

060400 Conservation and efficiency

069900 Other

070000 Manufacturing

070100 Processed food products and beverages

070200 Fibre processing and textiles; footwear and leather

070300 Wood, wood products and paper

070400 Human pharmaceutical products

070500 Veterinary pharmaceutical products

070600 Agricultural chemicals

070700 Industrial chemicals and related products

070800 Basic metal products(incl smelting)

070900 Ceramics, glass and industrial mineral products

071000 Fabricated metal products

071100 Transport equipment

071200 Computer hardware and electronic equipment

071300 Communication equipment

071400 Instrumentation

Socio-Economic Objective Classification, cont...

071500 Machinery and equipment

079900 Other manufactured products

080000 **Construction**

- 080100 Planning
- 080200 Design
- 080300 Materials performance and processes
- 080400 Construction processes
- 080500 Building management and other services

090000 **Transport**

- 090100 Ground transport
- 090200 Water transport
- 090300 Air transport
- 099900 Other transport

100000 **Information and communication services**

- 100100 Computer software and services
- 100200 Other information services
- 100300 Communication services

110000 **Commercial services**

- 110100 Electricity, gas and water services and utilities
- 110200 Waste management and recycling
- 110300 Wholesale and retail trade
- 110400 Finance property and business services
- 119900 Other commercial services

120000 **Economic framework**

- 120100 Macroeconomic issues
- 120200 Microeconomic issues
- 120300 International trade issues
- 120400 Management and productivity issues
- 120500 Measurement standards and calibration services
- 129900 Other economic issues

DIVISION 3 SOCIETY

130000 **Health**

- 130100 Clinical(organs,diseases and conditions)
- 130200 Public health
- 130300 Health and support services

140000 **Education and training**

- 140100 Early childhood and primary training
- 140200 Secondary education
- 140300 Higher education
- 140400 Technical and further education
- 140500 Special education
- 149900 Other education

150000 **Social development and community services**

- 150100 Community services
- 150200 Public services
- 150300 Art, sport and recreation
- 150400 International relations
- 150500 Ethical issues
- 159900 Other social development and community issues

DIVISION 4 ENVIRONMENT

160000 **Environmental knowledge**

160100 Climate and atmosphere
160200 Ocean
160300 Water
160400 Land
160500 Nature conservation
160600 Social environment
169900 Other environmental knowledge

170000 Environmental aspects of economic development

170100 Plant production and plant primary products (incl forestry)
170200 Animal production and animal primary products (incl fishing)
170300 Mineral resources (excl energy)
170400 Energy resources
170500 Energy supply
170600 Manufacturing
170700 Construction
170800 Transport
170900 Information and communication services
171000 Commercial services
171100 Environmental economic framework

180000 Environmental management and other aspects

180100 Environmental management
189900 Other environmental aspects

DIVISION 5 ADVANCEMENT OF KNOWLEDGE

190000 Natural sciences, technologies and engineering

190100 Mathematical sciences
190200 Physical sciences
190300 Chemical sciences
190400 Earth sciences
190500 Information, computer and communication technologies
190600 Applied sciences and technologies
190700 General engineering
190800 Biological sciences
190900 Agricultural sciences
191000 Medical and health sciences

200000 Social sciences and humanities

200100 Social sciences
200200 Humanities