



Educational Standards for First Professional Award Programs in Chiropractic

December 2009

INTRODUCTION

These Standards are intended for use by:

- institutions granting first professional awards in chiropractic in Australia and New Zealand in self-evaluation of their educational programs, and
- the Council on Chiropractic Education Australasia Inc. (CCEA), insofar as it is involved in recognition and accreditation of these institutions and their chiropractic programs.

The focus of these Standards is on Undergraduate Chiropractic Education, and the document has two main objectives:

- to establish a system of evaluation and accreditation of institutions teaching chiropractic to assure minimum quality standards for chiropractic educational programs;
- to stimulate institutions to formulate their own plans for change and for quality improvement in those programs and generally.

In framing the Standards, CCEA is cognisant of the academic independence of universities, but seeks to ensure the new chiropractic graduates are so prepared that they are competent and responsive to the appropriate health needs of both individual citizens and communities. Hence, standards are defined for basic chiropractic education, with account being taken of variations in curricula and teaching methods, but with an expectation of a high degree of equivalence of structure, process and product of chiropractic institutions within Australia and New Zealand.

The core of the chiropractic curriculum consists of basic, behavioural and social sciences, general clinical skills, clinical decision making skills, communication abilities and ethics, and must be addressed by all institutions aiming to produce safe practitioners of quality.

Equally relevant is the process of chiropractic education. Desirable practices in educating the basic chiropractor incorporate well-recognised and accepted principles of learning, together with the institutional environment/conditions for educational activities.

Moreover, the second major goal of accreditation, the assurance of quality, requires that institutions adhere to a set of minimum standards of quality education, with an emphasis on continuous improvement and associated planning. Hence the application of the Standards in the accreditation process is intended to preserve the autonomy and uniqueness of education institutions and encourage innovative and experimental programs in a manner that insures quality and integrity of the institution.

DEFINITIONS

The CCEA recommends the following standards in basic chiropractic education. The standards are structured according to 5 **areas** with a total of 32 **sub-areas**.

AREAS are defined as broad components in the structure and process of chiropractic education and cover:

1. Governance, Structure and Administration
2. Students
3. Educational Resources
4. Curriculum
5. Program Evaluation

SUB-AREAS are defined as specific aspects of an area, corresponding to performance indicators.

STANDARDS are specified for each sub-area using two levels of attainment:

- **Basic standard.** This means that the standard must be met by every institution and fulfilment demonstrated during evaluation of the institution. *Basic standards are expressed by a “must”.*
- **Standard for quality development.** This means that the standard is in accordance with consensus about best practice for basic chiropractic education. Institutions should be able to demonstrate fulfilment of some or all of these or that initiatives to do so have or will be taken. Fulfilment of these standards will vary with the stage of development of the institutions, their resources and educational policy. Even the most advanced institutions might not comply with all standards. *Standards for quality development are expressed by a “should”.*

NOTES are used to clarify, amplify or exemplify expressions in the standards.

Amendments record:

September 2003	Original version
December 2009	Revisions for Mental Health & Student Performance <ul style="list-style-type: none">• 4.4.3 Clinical Sciences (Notes)• 4.4.4 Behavioural and Social Sciences and Ethics (Notes)• 5.3 Student Competencies (Notes)
	Revisions for Student Performance <ul style="list-style-type: none">• 5.4 Student Performance (“Fieldwork” and Notes).

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1. GOVERNANCE, STRUCTURE AND ADMINISTRATION

1.1 GOVERNANCE

Basic Standard

Governance structures and functions of the "unit" responsible for the conduct of courses in chiropractic **must** be defined, including their relationships within their Institution/University.

Quality Development

The "unit" responsible **should** be a recognised academic organisational unit in a Higher Education Institution established in law in either Australia, New Zealand or the country in which the course is being presented, or be a collaborative venture in which one of the partners is a recognised academic organisational unit in a higher educational institution established in law.

1.2 STATEMENTS OF MISSION, GOALS AND OBJECTIVES

Basic Standard

The responsible unit within the institute **must** clearly define its mission and goals and make them known to its constituency.

The mission statements and objectives **must** describe the educational process resulting in a chiropractor competent as a primary contact health care provider, with an appropriate foundation for further training and in keeping with the roles of chiropractors in the health care system.

The mission statement and goals **must** be defined by its principal stakeholders.

Quality Development

The mission and objectives **should** encompass social responsibility, research attainment, community involvement, and address readiness for lifelong learning.

Formulation of mission statements and goals **should** be based on input from a wider range of stakeholders.

Notes

Principal stakeholders would include the dean, members of the faculty board/council, the university, and the profession.

A wider range of stakeholders would include representatives of academic staff, students, the community, education and health care authorities, professional organisations and postgraduate educators.

1.3 ACADEMIC LEADERSHIP

Basic Standard

The responsibilities of the academic leadership of the unit responsible for the chiropractic program must be clearly stated, and courses **must** be taught only by staff authorised by the institution.

Staff teaching in courses **must** be adequately qualified to meet the unit mission and goals and course objectives.

Quality Development

Management and supervision of the chiropractic program **should** be under the direction or coordination of a head of the unit who **should** be a qualified chiropractor who has graduated from an accredited chiropractic educational program.

Non-award courses presented or sponsored by the institution **should** be directed or co-directed by institutional staff.

1.4 POLICIES AND PROCEDURES

Basic Standard

Each institution/unit **must** have written policies and procedures that encompass:

- (a) Institutional/Unit Disclosure: demonstrated by an annual published handbook that outlines items considered to be important to current and potential students
- (b) Instructional Program Management: an outline of the management and control of all courses for credit as well as for seminars and other non-credit activities.
- (c) Academic & General Staff conditions of service: these must be consistent with jurisdictional expectations and address all aspects recognised within good human resource management.
- (d) Students

These **must** comply with all applicable legal requirements, and New Zealand Institutions **must** have policies and procedures concerning the Treaty of Waitangi.

Quality Development

Instructional Program Management: These policies **should** be consistent with the Code of practice for University teaching as promulgated by the Australian Vice-Chancellors' Committee, (see appendix) or an appropriate standard.

Notes

Institutional/Unit Disclosure: the following aspects must be included:

- mission, goals and program objectives;
 - membership of the governing board, the chief administrative officer, and other major officers
 - faculty members, with their respective academic credentials
 - courses offered, set out by organisational units, with content and value in terms of contact and/or credit hours for each;
 - entrance and graduation requirements
 - policies and procedures regarding discipline, attendance, examinations, grades, satisfactory student progress, and handling of student complaints
 - list of fees and payment refund policy details
 - brief descriptions of the learning resource centre, laboratory and clinic facilities
 - status of the institution's awards for professional registration
 - available students services
- and within New Zealand, Institutions **must** adhere to the principles of the Treaty of Waitangi.

Academic & General Staff Conditions of service: policies must address the following:

- non-discrimination and equal opportunity in employment
- promotion, tenure (or its alternative), and retirement
- termination of employees
- academic freedom
- employee contractual agreements
- full and part-time staff employment & teaching hours
- computation of staff load
- employee benefits
- occupational health & safety
- the assessment/evaluation of employee performance, plus incentives and opportunities for individual growth and development.
- patents and copyrights

Students: policies must include the following:

- Equal opportunity
- Student records – both evidence of previous education and current course details
- Student progress - confirming grades and indications of promotion/progress
- Student rights and duties
- Occupational health & safety
- Attendance

- Degree requirements
- Student discipline
- Student complaints
- Student admission

All policies and procedures should protect the students as consumers and provide avenues for appeal and due process. Policies should ensure that student records accurately reflect work accomplished and are maintained in a secure manner.

1.5 FINANCIAL MANAGEMENT

Basic Standard

Accounting methods **must** comply with generally accepted standards for higher educational institutions or appropriate alternative standards established by local statute.

2. STUDENTS

2.1 STUDENT ADMISSION

2.1.1 ADMISSION POLICY

Basic Standard

Chiropractic institutions **must** have a clearly defined admission policy that is consistently applied and is free from discrimination and bias.

The qualifications for student enrolment **must** be appropriate to the educational mission, goals and program objectives of the institution.

The admission policy **must** include details of the relationship between selection criteria and the educational mission, goals and program objectives of the institution.

Quality Development

The admission policy **should** be reviewed periodically, based on relevant data from the chiropractic profession and the community in order to comply with the social responsibilities of the institution and the needs of the community.

The admission policy **should** recognise that there is no agreed method of selecting the most appropriate chiropractic students, though a range of methods, including face-to-face interview should be considered. Likewise, the policy **should not** be overly prescriptive in defining prerequisite subject requirements so that diversity among applicants is encouraged. Institutions **should** provide for supplementary tuition for otherwise well-qualified and appropriate students who lack experience in specific areas.

Notes

Diversity among applicants would include older students, those from other careers or courses, and those from diverse social or cultural groups. Recognition of the principles of equity would also be reflected in the policy.

2.1.2 APPLICANTS for Australian and New Zealand Courses

Basic Standard

The minimum requirements for entry **must** be equivalent to those required for entry into a first professional degree course at an Australian or New Zealand university but shall be no less than Higher School Certificate (HSC) standard.

The applicant **must** have attained an aggregate score which allows admission to a science degree course at leading universities in the place of domicile.

Credentials of applicants from countries outside Australia and New Zealand **must** be submitted to the relevant authority for evaluation and certification of equivalence to the Higher School Certificate prior to a place being offered.

As English is the language of instruction and is the first language of health care systems in Australian and New Zealand applicants **must** be able to provide evidence of fluency in written and spoken English.

2.1.3 TRANSFER STUDENTS

Basic Standard

- i) Applicants for admission to advanced standing **must** be able to furnish evidence that:
 - (a) They can meet the same entrance requirements as candidates for the first year class;
 - (b) Courses equivalent in content and quality to those given in the admitting institution in the year or years preceding that to which admission is desired have been satisfactorily completed;
 - (c) The work was done in a chiropractic institution acceptable to the committee on admissions of the institution.
- ii) Credit may be granted to an applicant who has taken appropriate and relevant professional training or work.
- iii) For all students admitted to advanced standing, there **must** be on file with the registrar, the same documents required for admission to the first-year class and, in addition, either a certified transcript of work completed or a certificate of graduation and transcript from the graduating institution.
- iv) Transfer credits **must** be earned within five years of the date of admission to the admitting program or institution. The program or institution may elect to waive this requirement for persons holding a first professional degree in the health sciences (e.g. MBBS, a bachelors degree in osteopathy dentistry or physiotherapy), or an academic degree (Masters or PhD) in a related discipline (e.g. biology, zoology or physiology) from an accredited institution.
- v) Credits used to satisfy minimum prerequisites for admission **must not** be used for advanced placement credit.

2.1.4 OVERSEAS APPLICANTS

Basic Standard

In Australia or New Zealand, students who are not citizens of Australia or New Zealand, or who do not possess an immigrant visa for Australia **must** comply with the following special requirements in addition to normal entrance requirements. Such applicants **must**:

- (a) Meet Australian or New Zealand immigration regulations governing the entrance of overseas students.
- (b) Submit proof of proficiency in English, unless English is their first language. Their proficiency must be to the standard prescribed by the Institution and must meet local immigration requirements.
- (c) Produce proof that they meet the same educational requirements as students entering the program from Australia or New Zealand or the specific regional entry requirements stipulated.
- (d) Comply with all requirements of the Overseas Student Office relating to a visa application.
- (e) Provide all documentary evidence in English or provide certified translations to accompany documents.
- (f) Provide evidence of financial security sufficient to satisfy Australian or New Zealand immigration requirements for a student visa.

2.2 ASSESSMENT OF STUDENTS

Basic Standard

The Institution **must** define and state the methods used for assessment of its students, including the criteria for passing examinations. Assessment practices **must** be clearly compatible with its educational objectives and **must** promote learning.

Quality Development

The reliability and validity of assessment methods **should** be documented and evaluated and new assessment methods developed. The number and nature of examinations **should** be adjusted by integrating assessments of various curricular elements to encourage integrated learning.

Student performance **should** be used to provide feedback to the committees responsible for student selection, curriculum planning and student counselling.

Notes

Sound assessment requires relating the assessment procedures as directly as possible to intended learning outcomes.

Methods used for assessment may include consideration of the balance between formative and summative assessment, the use of norm-referenced or criterion-referenced assessment, and the number of assessments.

Comprehensive assessment requires a variety of procedures. Multiple-choice and short answer assessments are useful for measuring knowledge, understanding and application outcomes, whereas essay tests and other written projects are needed to assess the ability to organise and express ideas. Projects that require students to formulate problems and collect data are needed to measure skills in formulating and solving problems. Observational techniques are required to assess performance skills and various aspects of student behaviour (particularly pertinent for clinical skills). Finally, self-report techniques are useful for assessing attitudes.

Evaluation of assessment methods may include an evaluation of how they promote learning.

New assessment methods may include the use of external examiners.

Adjustment of number and nature of examinations would include consideration of avoiding negative effects on learning.

2.3 STUDENT SUPPORT AND COUNSELLING

Basic Standard

A program of student support, including counselling, **must** be offered by the Institution.

Quality Development

Counselling should be provided based on monitoring of student progress and should address social, cultural and personal needs of students.

Notes

Social and personal needs would include orientation, academic support, career guidance, health problems, cultural issues and financial matters. Students should have available the necessary support to provide career information and guidance as to practice, postgraduate and research opportunities.

2.4 STUDENT REPRESENTATION

Basic Standard

The Institution **must** have a policy that makes provision for student representation and appropriate participation in institutional/unit policy determination.

Quality Development

Student activities and student organisations **should** be encouraged and facilitated.

Notes

Determination of institutional/unit policy includes the design, management and evaluation of the curriculum, and other matters relevant to students such as library acquisitions, information technology support, matters relating to the clinical facilities, etc.

Student activities and organisations would include student self-government and representation on educational committees and other relevant bodies as well as social activities.

3. EDUCATIONAL RESOURCES

3.1 ACADEMIC STAFF

Basic Standard

Each program **must** have adequate and stable staff whose complement **must** be suitable for the curriculum, in terms of the mix of qualifications, experience, aptitudes, status, gender, etc.

Quality Development

All staff **should** regularly undertake appropriate staff development related to identified needs: induction, in-service training, secondments, consultancy, research and other scholarly activities.

Notes

Teaching staff in the basic sciences must have qualifications and experience well in excess of the level at which they are teaching (Masters or PhD level). These persons must have their degree in a basic science discipline closely related to their primary instructional assignment.

Teaching staff in the clinical sciences must have a first professional award granted by an institution accredited by a nationally recognised agency or its foreign equivalent and be registered in the country in which the institution is domiciled. In addition, such persons should have one of the following: a relevant Fellowship or similar, be enrolled in a relevant postgraduate speciality program, three years full time practice experience, two years teaching experience at a first professional degree granting institution as a staff member in that degree program.

Teaching staff in the disciplines of clinical psychology and nutrition must hold appropriate qualifications from accredited institutions.

Each person supervising clinical experiences that include patient care must have 3 years practical chiropractic experience and be appropriately registered to practise chiropractic in the jurisdiction in which the educational activity and/or clinical experience is offered. Each person supervising other clinical experiences must be appropriately credentialed as a healthcare provider and registered to practise in the jurisdiction in which the educational activity and/or clinical experience is offered.

It is highly desirable that no more than eighty percent (80%) of the academic staff holding chiropractic awards who teach in the clinical sciences or clinic shall hold such qualifications from the Institution in which they are teaching.

Qualifications in higher education are strongly encouraged for all staff teaching in chiropractic programs.

3.2 ADMINISTRATIVE STAFF

Basic Standard

The Institution's administrative staff **must** be appropriate to support the implementation of its educational program and other activities and to ensure good management and deployment of its resources.

Quality Development

The management **should** include a program of quality assurance and the management **should** submit itself to regular review.

Notes

Other activities include the conduct of research and other scholarly activities, community service and student services.

3.3 PHYSICAL FACILITIES

Basic Standard

Each institution **must** have sufficient physical facilities for the staff and student population to support the program objectives of its mission and goals. The institution **must** be able to provide evidence that these facilities comply with all applicable legal requirements. There **must** be clear and identifiable policies regarding maintenance, access, and use of such facilities.

Quality Development

The learning environment for the students **should** be improved by regular updating and extension of the facilities to match developments in educational practices.

Notes

Physical facilities include lecture halls, tutorial rooms, laboratories, learning resource centres, information technology facilities, clinical facilities, recreational facilities etc.

Access and use of facilities refers to access and use by faculty, students, patients and others including the profession and the community.

3.4 CLINICAL TRAINING RESOURCES

Basic Standard

Each institution **must** have the necessary resources and clinical training facilities adequate to support the program objectives of its mission and goals.

Quality Development

The facilities for clinical training **should** be developed to ensure clinical training which is adequate to the needs of the population in the geographically relevant area.

Notes

Clinical training facilities include clinics, and other community health care settings as well as skills laboratories.

Facilities for clinical training should be evaluated regularly for their appropriateness and quality regarding both chiropractic training programs and delivery of patient care.

The Institution must provide sufficient opportunities for all students to obtain the experience necessary to achieve its stated clinical competencies. This requires that patient volume and case variety is monitored.

There must always be an adequate number of qualified staff on-site in the clinical setting to supervise and take responsibility for student delivery of patient care services.

3.5 INSTRUCTIONAL AIDS AND EQUIPMENT

Basic Standard

Classroom and clinic equipment **must** be adequate to provide students with the opportunities to gain knowledge and skills in the effective use of all standard diagnostic and therapeutic equipment relevant to the discipline.

Quality Development

There **should** be opportunity for students to become familiar with applications of advanced imaging procedures (such as radioisotope scanning, MRI, CT, ultrasound scanning, etc.), bone densitometry, EMG, nerve conduction studies, and other relevant procedures.

Notes

Adequate servicing and all safety standards must be met where X-ray installations, film processing facilities, physical therapeutic equipment, and/or chiropractic adjusting tables are utilised.

Policies and procedures on the use of ionising radiation must be in place and should include criteria for patient selection, frequency of radiography on patients, and retaking radiographs consistent with current, accepted chiropractic practice and legal requirements.

Opportunities for students to become familiar with the applications of advanced imaging procedures etc. may be afforded by the use of outside facilities, or guest lecturers.

3.6 LEARNING RESOURCE CENTRES

Basic Standard

Each institution **must** have a Learning Resource Centre/Library with staff, facilities, and collections resources adequate to the program objectives of the mission and goals of the institution.

Quality Development

There should be opportunity for academic staff and students to provide direct structured input into a Library Committee.

Notes

Support staff must be available to help the students.

Access to computer-based reference systems must also be provided.

3.7 INFORMATION TECHNOLOGY

Basic Standard

Each institution **must** have a policy which addresses the evaluation and effective use of information and communication technology in the educational program.

Quality Development

Teachers and students **should** be enabled to use information and communication technology for self-learning, accessing information, managing patients and working in health care systems.

Notes

A policy regarding the use of computers, internal and external networks and other means of *information and communication technology* would include coordination with the library services of the institution.

The use of *information and communication technology* may be part of education for evidence based health care and in preparing the students for continuing education and professional development.

3.8 FINANCIAL RESOURCES

Basic Standard

The Institution **must** demonstrate adequacy and stability of financial resources to support the program objectives of its mission and goals. In demonstrating adequacy and stability of resources, the Institution **must** show that it has adequate budgetary controls and the ability to graduate its most recent entering class.

Quality Development

There **should** be sufficient autonomy to direct resources, including remuneration of teaching staff, in an appropriate manner in order to achieve the overall objectives of the Institution.

Notes

The Institution must have a clear line of responsibility and authority for the curriculum and its resourcing, including a dedicated educational budget.

The institution should have the financial resources required to develop and sustain the program on a continuing basis. The institution should have the ability to employ an adequate number of full-time faculty, purchase and maintain equipment, procure supplies, reference material and teaching aids as reflected in annual budget appropriations. Annual appropriations should provide for innovations and changes necessary to reflect current concepts of education in the discipline.

3.9 PATIENT CARE SERVICES

Basic Standard

The institution **must** have a patient care program and an associated formal system of quality assurance that demonstrates evidence of:

- standards of care that are patient-centered, focused on comprehensive care and written in a format that facilitates assessment with measurable criteria;
- an ongoing review of a representative sample of patients and patient records to assess the appropriateness, necessity and quality of the care provided;
- mechanisms to determine the cause(s) of patient care deficiencies; and
- patient review policies, procedures, outcomes and corrective measures.

Quality Development

The institution **should** have developed and distributed to all appropriate students, faculty, staff and to each patient a written statement of patients' rights. (NB. This is a **must** in New Zealand).

Notes

The use of quantitative criteria for student advancement and graduation must not compromise the delivery of comprehensive patient care.

The unit's policies must ensure that the confidentiality of information pertaining to the health status of each individual patient is strictly maintained and in accord with relevant statutory requirements (eg Privacy Legislation).

The primacy of care for the patient should be well established in the management of the program and clinical facility assuring that the rights of the patient are protected.

4. CURRICULUM

4.1 CURRICULUM DEVELOPMENT

Basic Standard

The administration and faculty/academic staff **must** have freedom to design the curriculum and allocate the resources necessary to its implementation.

Quality Development

All faculty **should** have a significant role in determining the content of the curricula and courses offered by the institution. The educational resources **should** be distributed in relation to the educational needs.

Notes

The curriculum committee should be provided with resources for planning and implementing methods of teaching and learning, student assessment, course evaluation, and for innovations in the curriculum. There should be representation on the curriculum committee of staff, students and other stakeholders.

The curriculum committee should seek input from the environment in which graduates will be expected to work and should undertake program modification in response to feedback from the community and society.

4.2 CURRICULUM MODELS AND INSTRUCTIONAL METHODS

Basic Standard

The Institution **must** define the curriculum models and instructional methods employed, and these must be consistent with the mission, goals and educational objectives of the institution.

Quality Development

The curriculum and instructional methods **should** ensure the students have responsibility for their learning process and **should** prepare them for lifelong, self-directed learning.

Notes

The range of Curriculum models chiropractic institutions may employ is wide, including problem-based, system-based and discipline-based learning.

The *curriculum and instructional methods* should be based on sound learning principles and should foster the ability to participate in the scientific development of chiropractic as professionals and future colleagues.

The curriculum should emphasise active participation of students in the education process, provide opportunities for studying certain areas in greater depth through optional or elective units, and allow exposure to a wide range of institutional and community experiences.

While didactic teaching can be an effective means of explaining important concepts and principles, and clinical clerkships embody sound educational principles of active student participation and problem-solving, the CCEA encourages chiropractic institutions to consider other educational strategies that promote student-centred rather than teacher-centred learning, promote active student enquiry, stimulate analytical and knowledge organisation skills, and foster lifelong learning skills.

The evolution of curricula in health sciences in recent years has resulted in innovative teaching strategies and greater emphasis on small group and self-directed learning. Thus, complete dissection of the human body is no longer considered essential and may be replaced by study of prepared specimens and computer-based learning modules, which integrate structure and function. Similarly, some practical classes may be better replaced with interactive computer-based simulations for individual students. The rapid improvement in multimedia information technology has vastly expanded the potential for integrated learning throughout the basic and clinical sciences. Increasingly, computer-assisted learning may be an integral part of the chiropractic curriculum.

4.3 CURRICULUM STRUCTURE

Basic Standard

The institution **must** document the content, extent and sequencing of courses (including the balance between the core and optional content), and how they are integrated into a coherent program.

The total curriculum **must** comprise a minimum of 10 semesters full time (or its equivalent).

Quality Development

The basic and clinical sciences subjects **should** be integrated in the curriculum.

Institutions are expected to structure the curriculum so that the average student load requirements are reasonable.

Notes

Core and optional content refers to a curriculum model with a combination of compulsory elements and electives or special options. The ratio between the two components may vary.

Integration of disciplines includes both horizontal (concurrent) and vertical (sequential) integration of curricular components.

4.4 PROGRAM CONTENT

Basic Standard

Clinical, behavioural and basic science instruction **must** be of sufficient depth, scope, timeliness, quality and emphasis to ensure achievement of the curriculum's defined competencies. Courses offered in the curriculum **must** address the following areas (not necessarily in discrete courses for each subject):

4.4.1 PRINCIPLES AND PRACTICE OF CHIROPRACTIC

Basic Standard

The Institution **must** identify and incorporate in the curriculum a profile of the philosophical concepts and principles of chiropractic, and the development of chiropractic practice, to create an understanding of the positioning and function of the chiropractic profession in the health care system.

Quality Development.

The impact and contribution of chiropractic principles and practice **should** be integrated into appropriate elements of the program curriculum.

Notes

Topics expected to be addressed in this context include: the history of the development of the chiropractic profession, the theories and underlying principles upon which case management is based, the role of the chiropractor as a primary contact health care provider and the chiropractic profession's relationship to other professions and organisations.

4.4.2 BASIC SCIENCES

Basic Standard

The institution **must** identify and incorporate in the curriculum the contributions of the basic sciences to create understanding of the scientific knowledge, concepts and methods fundamental to acquiring and applying clinical science.

Quality Development

The contributions in the curriculum of the basic sciences **should** be adapted to the scientific, technological and clinical developments as well as to the health needs of society.

Notes

The Basic Sciences include anatomy, biochemistry, physiology, neurology, microbiology, histology, embryology, pathology, biophysics, molecular and cell biology, genetics, immunology, and other appropriate subjects.

Basic science instruction in chiropractic education must ensure an in-depth understanding of basic biological principles, consisting of a core of information on the fundamental structures, functions and interrelationships of the body systems. In-depth information on abnormal biological conditions must be provided to support a high level of understanding of the aetiology, epidemiology, differential diagnosis, pathogenesis, prevention, treatment and prognosis of conditions relevant to primary contact practice. Basic science knowledge must be of sufficient depth and scope for graduates to apply advances in health care to clinical practice.

The principles of scientific method and evidence based health care, including analytical and critical thinking must be taught throughout the curriculum. The curriculum may include elements (such as elective research projects) for training students in scientific thinking and research methods.

4.4.3 CLINICAL SCIENCES

Basic Standard

The institution **must** ensure that students have adequate patient experiences and opportunities to acquire sufficient clinical knowledge, skills, and attitudes to assume appropriate clinical responsibility upon graduation.

Quality Development

Students **should** have early patient contact leading to participation in patient care. The different components of clinical skills training **should** be structured according to the stage of the study program.

Notes

The Clinical Sciences include physical, clinical and lab diagnosis, mental health assessment, orthopaedics, gynaecology, obstetrics, paediatrics, geriatrics, dermatology, otolaryngology, ophthalmology, diagnostic imaging procedures and interpretation, nutrition, rehabilitation, ergonomics, pharmacology (a working knowledge of commonly used medications and pharmaceuticals), and other appropriate subjects.

Clinical skills include history taking, physical examination, spinal analysis, mental health assessment, first aid and emergency procedures, manual techniques, physical therapies (such as heat, cold, bracing, electrical therapies, etc.), and other treatment procedures, communication, leadership skills, etc.

Appropriate clinical responsibility would include physical and mental health promotion, disease prevention and patient care, for the child, adolescent, adult, geriatric and medically compromised patient.

Participation in patient care would include relevant community experience and teamwork with other health professions.

4.4.4 BEHAVIOURAL AND SOCIAL SCIENCES AND ETHICS

Basic Standard

The institution **must** identify and incorporate in the curriculum the contributions of the behavioural sciences, social sciences, ethics and jurisprudence that enable effective communication, clinical decision making and ethical practices.

Quality Development

The contributions of the behavioural and social sciences and ethics **should** be adapted to scientific developments in chiropractic, to changing demographic and cultural contexts and to the health needs of society.

Notes

Behavioural and social sciences include psychology, sociology, biostatistics, epidemiology, hygiene and public health, professional practice ethics, practice management, and other appropriate subjects as they apply to chiropractic.

The behavioural and social sciences and ethics should provide the knowledge, skills and attitudes necessary for understanding socio-economic, demographic and cultural determinants of causes, distribution and consequences of health problems.

Instruction should be provided in patient-centered approaches for promoting, improving and maintaining physical and mental health, and in managing a diverse patient population. Students should be given the opportunity to acquire the interpersonal and communications skills to function successfully in a multicultural work environment.

4.5 RESEARCH PROGRAM

Basic Standard

Each Institution **must**:

- establish research program objectives that support its mission and goals;
- foster research by providing adequate time, space and resources; and
- describe the research facilities and areas of research priorities at the institution/unit.

Quality Development

Each Institution **should** compile evidence regarding the extent to which the research program outcomes meet stated objectives. The interaction between research and education activities **should** be reflected in the curriculum and influence current teaching and **should** encourage and prepare students for engagement in research and development.

Notes

An environment which encourages research, and in which research is actively pursued is required to engender the pattern of scientific thought and critical appraisal which should underlie chiropractic practice. Research activity is also considered necessary to attract a high calibre teaching staff and research productivity enhances the morale of the teaching staff.

It is considered appropriate for the institution to encourage research in all its departments. It does not follow that all individuals within departments should have an equal commitment to research, and some academic staff may have a heavier teaching or clinical load than others. Nevertheless, all staff members should support the general philosophy of a scientific approach to chiropractic.

Each institution should strongly encourage students to gain research experience during the course (some may wish to undertake an intercalated research year for example). One of the potential career pathways of graduates from chiropractic programs is research and it is important that those students with an interest in research should be encouraged and given an opportunity to gain some research experience.

4.6 ETHICS IN RESEARCH

Basic Standard

An Institution conducting, sponsoring, or participating in research involving human or animal subjects must have written policies that protect these human or animal subjects.

Notes

The *written policies* must specify the formation of a human rights committee and the responsibilities and authority of such a committee. Such a committee must assure compliance with the principles of the public health service.

An Institution using animal subjects must comply with the regulations of the appropriate authority eg National Health and Medical Research Council (Australia).

4.7 SERVICE

Basic Standard

Each institution **must** establish service program objectives that support its mission and goals.

Quality Development

Each institution **should** provide appropriate financial, faculty, physical and administrative resources for the conduct of services. Each institution **should** compile evidence regarding the extent to which service outcomes meet the stated service objectives.

Notes

There should be effective methods for the Institution to communicate with, and receive the opinions of health workers (including chiropractors) and recipients of health care in the community, so that the Institution can respond appropriately to the health care needs of the community.

5. PROGRAM EVALUATION

5.1 MECHANISMS FOR PROGRAM EVALUATION

Basic Standard

The chiropractic program **must** establish a mechanism for course evaluation that monitors the curriculum and student progress, and ensures that concerns are identified and addressed.

Quality Development

Program evaluation **should** address the context of the educational process, the specific components of the curriculum and the general outcome.

Notes

Mechanisms for program evaluation would imply the use of valid and reliable methods and require that basic data about the curriculum are available. Involvement of experts in chiropractic education would further broaden the base of evidence for the quality of chiropractic education at the institution.

Identified concerns would include problems presented to the Course Advisory Committee or equivalent.

The context of the educational process would include the organisation and resources as well as the learning environment and culture of the chiropractic program.

Specific components for program evaluation would include course description and student performance,

General outcomes would be measured e.g. by external Board examinations, the percentage of graduates registering as chiropractors and postgraduate performance.

5.2 INSTITUTIONAL OUTCOMES

Basic Standard

As a condition of accreditation each institution **must** provide evidence of its institutional effectiveness in achieving the Mission, Goals and Objectives it has established for itself.

Quality Development

The objective of the program **should** be to ensure that the graduate effectively obtains the basic competencies required by a chiropractor as detailed in the Competency-Based Standards for Entry Level Chiropractors (Appendix A).

5.3 STUDENT COMPETENCIES

Basic Standard

The Institution **must** define and state the competencies that students should exhibit on graduation in relation to their future roles in the health care system. The competencies **must** be focused on educational outcomes. Competencies **must** incorporate the requirements listed in the Competency-Based Standards for Entry Level Chiropractors. (Appendix A)

Quality Development

Measures of, and information about, competencies of the graduates **should** be used as feedback to program development.

Notes

Competencies within chiropractic at the level of a primary contact practitioner include knowledge and understanding of the basic, clinical, behavioural and social sciences, including public health, and ethics relevant to the practice of chiropractic; attitudes and clinical skills (with respect to establishment of diagnoses, practical procedures, communication skills, physical and mental health promotion and disease prevention, patient care, rehabilitation, referral to other health care providers, clinical reasoning and problem solving); and the ability to undertake lifelong learning and professional development.

Competency-Based Standards for Chiropractors are aimed at entry level into the profession and represent a reasonable expectation of the public of an applicant for registration as a chiropractor in Australia and New Zealand. See document “Competency Based Standards for Entry Level Chiropractors”.

5.4 STUDENT PERFORMANCE

Basic Standard

Student performance **must** be analysed in relation to the curriculum and the mission and objectives of the chiropractic program.

Each Institution would be expected to provide evidence that candidates for graduation have:

- performed at least fifty (50) individual, patient clinical assessments, including a comprehensive case history and examination for each patient for the purpose of developing a diagnosis or clinical impression and an appropriate case management regime,
- performed at least five (5) examinations of each of the specific systems:- cardiovascular, respiratory, genitourinary, digestive, EENT and a minimum of forty (40) appropriate neuro musculoskeletal examination,
- interpreted and provided written reports on sixty (60) X-ray studies, at least thirty (30) of which were performed by the student on different patients;
- performed at least three hundred (300) chiropractic care sessions, directed toward the alleviation of an identifiable ailment,
- adequately demonstrated a comprehensive understanding of which clinical laboratory examinations should be undertaken and what should be their interpretive significance to relevant cases.

No more than 10% of the above services should be administered to students enrolled in the program.

“Fieldwork” activities (e.g. Sports events) may only be considered for care sessions, and for no more than 10%. There must be clear evidence of an examination, a diagnosis and a treatment, with documentation of an acceptable standard, plus evidence of supervision.

Quality Development

Student performance **should** be analysed in relation to student background, conditions and entrance qualifications, and **should** be used to provide feedback to the committees responsible for student selection, curriculum planning and student counselling.

Notes

A Case Mix analysis **must** be maintained on each intern's practicum experience to ensure sufficient opportunities for an adequate range of patients/conditions.

Measures of *student performance* would include information about average study duration, scores, pass and failure rates at examinations, success and attrition rates, student reports about conditions in their courses, as well as time spent by the students on areas of special interest.

5.5 INSTITUTIONAL RESPONSIBILITY FOR RESEARCH AND COMMUNITY SERVICE

Basic Standard

Each unit/institution **must** provide evidence regarding:

- the nature and extent of activity of benefit to the community provided by the institution;
- its responsiveness to the needs of the chiropractic profession and the community;
- its contribution to the body of research and scholarship for the profession.

5.6 EVALUATION AND INSTITUTIONAL PLANNING

Basic Standard

Each unit **must** maintain an active self-evaluation process, which **must** include input from representatives of institutional constituencies. Hence, program evaluation **must** involve the governance and administration of the chiropractic institution/unit, academic staff and the students.

Institutions **must** provide evidence of the linkage and impact of the coordination between self-evaluation, assessment outcomes and institutional planning in determining institutional effectiveness.

Quality Development

Teachers and students **should** be actively involved in planning program evaluation and in using results for program development.

A wider range of stakeholders **should** have access to results of course and program evaluation, and their views on the relevance and development of the curriculum **should** be considered.

Notes

A *wider range of stakeholders* would include educational and health care authorities, representatives of the community, cultural representation, professional organisations and those responsible for postgraduate education.

Glossary of Terms Used in Accreditation Standards for Chiropractic Education Programs

Competencies: Written statements describing the levels of knowledge, skills and attitudes expected of graduates.

Competent: The levels of knowledge, skills and attitudes required by the new graduates to begin independent, unsupervised chiropractic practice.

In-depth: A thorough knowledge of concepts and theories for the purpose of critical analysis and the synthesis of more complete understanding (highest level of knowledge).

Instruction: Describes any teaching, lesson, rule or precept; details of procedure; directives.

Must: Indicates an imperative need or a duty; an essential or indispensable item; mandatory.

Notes are used to clarify, amplify or exemplify expressions in the standards.

Should: Indicates a condition desirable but not mandatory.

Standard: Offers a rule or basis of comparison established in measuring or judging capacity, quantity, quality, content and value; criterion used as a model or pattern. Standards are specified using two levels of attainment:

Basic standard. This means that the standard must be met by every institution and fulfilment demonstrated during evaluation of the institution. Basic standards are expressed by a “must”.

Quality development. This means that the standard is in accordance with consensus about best practice for chiropractic education. Institutions should be able to demonstrate fulfilment of some or all of these or that initiatives to do so have or will be taken. Fulfilment of these standards will vary with the stage of development of the institutions, their resources and educational policy. Even the most advanced institutions might not comply with all standards. Standards for quality development are expressed by a “should”.