Chiropractic cross-institutional comparison: A benchmarking evaluation of CCEI and CCE USA accredited programmes

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Disclaimer

The views and opinions expressed in this report, *'Chiropractic cross-institutional comparison: A benchmarking evaluation of CCEI and CCE USA accredited programmes'*, are those of the author, Per J. Palmgren, and do not necessarily reflect the official policy or position of Karolinska Institutet, where the author has his permanent employment. Any content provided by the author is not intended to malign any religion, ethnic group, club, organization, company, individual or anyone or anything.

Competing interests

The author, Per J. Palmgren, has no present affiliation, relation or connection with any of the chiropractic educational institutions included in this report or elsewhere. Consequently, the author declares that he has no competing interests.

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Executive summary

In this European Chiropractors' Union (ECU) commissioned report titled *'Chiropractic cross-institutional comparison: A benchmarking evaluation of CCEI and CCE USA accredited programmes'*, the author has collected data on all Councils on Chiropractic Education International (CCEI) and Council on Chiropractic Education (CCE) USA accredited academic chiropractic programmes, their content and course credits. This data, in turn, has been scored using the common currency of the European Credit Transfer and Accumulation System (ECTS) to allow potential students, regulators and stakeholders in the chiropractic educational world to better compare qualifications. In this report, the author has identified themes and trends and offered recommendations for further action.

The methodological approach of the report consisted of data collection through web searches, direct relevant contacts, interviews and access to databases.

During the data collection period, 36 educational institutions were identified across 11 countries within CCEI and CCE USA: 53% were located in North America, 14% in Australia, 8% in the United Kingdom (UK) and the remaining 25% in various other countries globally.

The duration of chiropractic education varied from three to six years, with equivalent ECTS credits ranging from 240 to 360. Shorter programmes were observed in North America, whereas longer programmes were more prevalent in Europe, South Africa and Australasia. However, it is important to emphasize the following two significant aspects:

i. in North America, chiropractic education is divided into two cycles – an undergraduate pre-chiropractic cycle and a graduate professional cycle (chiropractic degree) and,

ii. the academic calendar in many institutions is denser with fewer breaks for students compared to the more traditional semester-oriented curriculum followed elsewhere.

It is a complex task to compare educational institutions globally due to the variations in education systems. The Bologna Process in Europe has aligned higher education systems by implementing a common credit system (ECTS), making it easier to compare European educational institutions. However, beyond Europe, educational comparisons become more challenging. Therefore, the author suggests promoting the availability of ECTS conversion in chiropractic educational institutions and/or national member bodies. This aligns with the viewpoints of numerous scholars who believe the Bologna Process can facilitate increased collaboration and partnerships among European Higher Education Area (EHEA) countries and beyond.

Despite significant differences in educational prerequisites, structure and pedagogy among the investigated chiropractic institutions, a strong homogeneity is omnipresent. The author asserts that the educational standards established by CCEI and CCE USA and the coordination between accrediting bodies play a crucial role in promoting educational goals. However, these standards have limited influence in certain national jurisdictions, highlighting the need for closer collaboration with local and national accrediting bodies to enhance the recognition of international chiropractic standards by national licensing authorities.

The author proposes that the ECU should engage in an international, multi-site comparative study of learning outcomes among educational providers affiliated with CCEI and CCE USA. Such a study should focus more on the outcomes than the quantity and content to facilitate the recognition of degrees across borders, which is currently impeded by international differences in chiropractic education systems.

Based on the results, it is recommended that, apart from ensuring compliance with CCE standards, the possibility of implementing a Common Training Framework (CTF) for the European Union (EU) must be explored to establish a mechanism for acknowledging the necessary professional qualifications for entering a regulated profession. This is readily achievable at the European level through the Professional Qualifications Directive, presently in place for several health-related occupations.

Introduction

This benchmarking report will introduce the professional context at the outset. This will be followed by a description of the background and scope of the evaluation and the articulation of the methodological approach. Penultimately, the findings from the project, constituting the core of the report, will be presented. Lastly, the author's reflections and recommendations will be illuminated.

Context

Chiropractic has been a health profession in Europe since the beginning of the twentieth century. In 1932, Belgium, Denmark, Great Britain and Switzerland established ECU to advocate for the profession at the supranational level.[1] As of 2024, the union has grown to include 22 member nations, all of which strongly advocate for the rights of European citizens to receive safe chiropractic healthcare while emphasizing the importance of engaging appropriately educated and qualified chiropractors to provide this healthcare.

The ECU aims to advance the development, improvement and recognition of evidence-based, people-centred, inter-professional and collaborative chiropractic in Europe.

Background

Healthcare workers are the engine of healthcare systems. Consequently, the movement of healthcare professionals between countries can impact the composition of the health workforce, leading to shortages and uneven distribution. This can also directly impact the effectiveness and equity of a healthcare system.

Professionals in the EU have the freedom to work in any member state, resulting in varying levels of intra-EU mobility. Some countries depend on foreign workers, whereas others experience many professionals migrating to other countries.[2] Globally, the World Health Organization (WHO) urges countries to address the challenges of healthcare workers' migration and promote its benefits.[3]

Stochkendahl et al. pointed out that the geographical location and number of chiropractors worldwide are unknown, and their characteristics are only partially described.[4] However, researchers have informed that international portability for chiropractors has persisted for a considerable period.[5] Today, chiropractic is a government officially recognized profession in only 7 of the EU's 27 member states. In addition to the EU, chiropractic is recognized in the UK, Switzerland and Norway. Most chiropractic work opportunities are concentrated in these countries where chiropractic is recognized and regulated. Currently, approximately 10,000 chiropractors actively work in Europe (including the UK and Switzerland),[6] even though many individuals in this workforce obtained their chiropractic qualifications outside Europe.

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[1] Beesley I. The Status of Chiropractic in Europe. European Chiropractors' Union. 2020.
[2] Buchan et al. Health professional mobility in a changing Europe: New dynamics, mobile individuals and diverse responses: volume II. World Health Organization. Regional Office for Europe. 2014.
[3] https://www.who.int/publications/i/item/wha68.32 (2024-02-25)
[4] Stochkendahl et al. The chiropractic workforce: A global review. Chiropr Man Therap. 2019 Jul 24; 27:36.
[5] Green et al. An international stakeholder survey of the role of chiropractic qualifying examinations: A qualitative analysis. J Chiropr Educ. 2020 Mar; 34(1):15–30.
[6] Direct communication with ECU Secretary General, Jim Pettipher (2024-01-17)

International chiropractic educational scholars[7] have expressed that "public confidence in chiropractic educational standards may be enhanced by global consistency in accreditation and assessment.", and Green et al. have pointed out a scarcity of reciprocal agreements between countries.[8]

In 2019, a large international cross-sectional survey reported that chiropractic education was available in 48 institutions across 19 countries, primarily in English-speaking and/or high-income nations. The distribution of chiropractic educational institutions varied from 1 to 18 per country, concentrating in the United States (US) and Australia. Ten countries had only one educational institution. Furthermore, the authors reported that accreditation for chiropractic education was present in 16 of the 18 countries through an international chiropractic accreditation council, a government or federal institution or both.

Chiropractic accrediting agencies from Australasia, Canada, Europe and the US established Councils on Chiropractic Education International (CCEI)[9] in 2001. While CCEI does not directly accredit individual programmes, it plays an important role in maintaining the quality of chiropractic education worldwide by providing an international framework for chiropractic education and accreditation. The following chiropractic educational accrediting bodies are members in good standing of the CCEI: European Council on Chiropractic Education (ECCE), Council on Chiropractic Education Australasia (CCEA) and Council on Chiropractic Education Canada (CCEC). However, it is important to note that Council on Chiropractic Education (CCE) USA[10], which accredits programmes in the US, is no longer a member agency of the CCEI. Nevertheless, the CCE USA is recognized by the US Department of Education and the Council for Higher Education Accreditation (CHEA) as the official accrediting body for chiropractic programmes in the US.

European Credit Transfer and Accumulation System (ECTS)

ECTS[11] is a standardized European Higher Education Area (EHEA) framework. Originally created in 1989 to simplify credit transfers for Erasmus programme participants, ECTS has since become a key component of the overarching Bologna Process, which was initiated in 1999.[12] The Bologna Process, which has been in place for two decades, focuses on the external dimension of European higher education. It involves 48 European countries and the European Commission in a decentralized yet coordinated manner. The main goal of the process is to modernize and improve higher education in Europe.[13] ECTS facilitates the description, design and delivery of educational programmes. ECTS credits empower mobility by easing the recognition of qualifications and study durations. ECTS credits can be applied to all types of educational programmes, regardless of the mode of delivery and all kinds of learning contexts.

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[7] World Federation of Chiropractic/Association of Chiropractic Colleges. WFC ACC Education Conference consensus statements. 2018. https://www.wfc.org/website/images/wfc/London_EdConference_2018/2018_Consensus_Statements.pdf. (2024-03-29)

[8] Green et al. An international stakeholder survey of the role of chiropractic qualifying examinations: A qualitative analysis. J Chiropr Educ. 2020 Mar; 34(1):15–30.

[9] Councils on Chiropractic Education International (CCEI) https://www.cceintl.org/ (2024-03-23)

[10] Council on Chiropractic Education USA https://www.cce-usa.org/ (2024-03-23)

[11] https://education.ec.europa.eu/education-levels/higher-education/inclusive-and-connected-higher-education/european-credit-transfer-and-accumulation-system (2024-03-23)

[12] European Commission. ECTS Users' Guide (2015).

[13] Klemenčič M. 20 years of the Bologna Process in a global setting: The external dimension of the Bologna Process revisited. European Journal of Higher Education. 2019; 9(1), 2–6.

ECTS credits express the volume of learning based on the defined learning outcomes and their associated workload.[14] Learning outcomes encompass what an individual knows, understands and exhibits in a learning process. The workload estimates the time the individual typically needs to complete the teaching and learning activities (TLA) required to reach the defined learning outcomes in formal educational contexts. General 60 ECTS credits are allocated to the learning outcomes and associated workload of a full-time academic year or its equivalent. ECTS credits are generally expressed in whole numbers.

National legal provisions frequently formalize the relationship between 60 credits and the full-time workload of an academic year. Most often, the workload ranges from 1,500 to 1,800 hours for a scholastic year, implying that one credit equals 25 to 30 hours of work.[15]

By comparing non-EU educational institutions that do not employ ECTS with those that do, this project will contextualize and support a comprehensive stakeholder understanding of chiropractic qualifications in the context of a well-known credit system. However, national authorities do not solely rely on their assessments of the duration of studies and quantification of ECTS but also weigh many other parameters such as educational and learning outcomes, type of courses within the programme and the breadth and depth of courses.

Scope and aim

The ECU outlined a specific scope for the author, an independent evaluator, to aggregate information that is readily available by weighing and comparing credits offered by all CCEI and CCE USA accredited programmes and show whether CCEI and CCE USA accredited chiropractors should be assessed to be suitably qualified and safe to practice chiropractic. Consequently, the aim of this project was four-fold:

1. Collect data on academic chiropractic programme credits and course content for all CCEI and CCE USA accredited institutions;
2. Identify any notable themes, trends and variances and
3. Report and present findings and recommendations for onward action.

[14] European Commission. ECTS Users' Guide (2015).
[15] European Commission. ECTS Users' Guide (2015).

Evaluation approach

ECU's Secretary General[16], Jim Pettipher, contacted the independent evaluator, Per J. Palmgren (PJP), based on recommendations at the beginning of November 2023. A formal agreement was established and signed on 2023-11-27. Thereafter, PJP collected data from December 2023 to February 2024.

Information was primarily collected through web data employing manual search using Google Chrome and Microsoft Edge search engines. This data collection approach was complemented with targeted direct mail contacts with assorted educational institutions and agencies. Additionally, in-depth, non-structured interviews were conducted between PJP and relevant stakeholders over Zoom and/or Teams. Additional assistance was provided by two administrative officers from the admission unit at Karolinska Institutet. PJP was also given access to the European Network of Information Centres-National Academic Recognition Information Centre (ENIC-NARIC) database by the Swedish Council for Higher Education (UHR) – a government agency tasked with providing support to the education sector and with specialized competence in evaluating foreign qualifications. Frequent digital meetings were also held with UHR governmental officers.

The educational institutions investigated in this report were selected and included based on being listed in the directories as holding current accredited status with the ECCE[17], CCEA[18], CCEC[19] and CCE USA[20]at the time of data collection. In this report, the following were excluded: chiropractic educational providers that had not obtained accreditation status, chiropractic programmes that had been previously accredited or chiropractic programmes with no communication, relation, or affiliation with CCEI or CCE USA. In this analysis, the Council on Chiropractic Education Latin America (CCE-LA) was also excluded, as it is a recent affiliate of the CCEI, having been granted associate membership status in June 2023.[21] At the time of writing this report, Latin America did not have any accredited educational institutions, except for Universidad Central Del Caribe in Puerto Rico, which CCE USA accredited.

Correspondence and online interviews were conducted with Dr Cynthia Peterson, past president of CCEI and quality assurance consultant for the ECCE, and Dr Ricardo Fujikawa, vice president of the Fujitega Research Foundation, member of the Asociación Española de Quiropráctica (AEQ) and international advisor for the CCE-LA.

The ease of retrieving web data from the educational institutions was assessed using a 5-point Likert response – 1 = Very difficult, 2 = Difficult, 3 = neither difficult or easy, 4 = Easy and 5 = Very easy. This mono self-reported data was presented using median (Md) and interquartile range (IQR).

[16] Position held at the initiation of the project.
[17] https://www.cce-europe.com/index.php/accredited-institutions.html (2024-01-08)
[18] https://www.ccea.com.au/accredited-programs (2024-01-08)
[19] https://chirofed.ca/accreditation/ (2024-01-08)
[20] https://www.cce-usa.org/dcp-information.html (2024-01-08)
[21] Direct communication with CCEI administrative officer, Kristi Randhawa (2024-01-25)

Findings

The evaluation results have been presented in this section. First, some data on accessibility and easiness of retrieving data has been addressed. Second, the investigated educational institutions and their local recognitions have been presented. Penultimately, the entry requirements have been discussed. This has been followed by an outline of the educational structure and pedagogical frameworks to support programme outcomes. Finaly, the national processes of license to practice have been illuminated. Finally, this section has articulated an overview of chiropractic conditions on a worldwide scale.

Retrieving data

It was easier to retrieve information about the chiropractic programmes in the educational institutions under the supervision of ECCE and CCEC (Md 5, IQR 1.75 and Md 4.5, IQR 0.5, respectively). On the other hand, data retrieval from CCEA and CCE USA educational institutions was more cumbersome (Md 3, IQR 1 and Md 3, IQR 2, respectively). However, among the CCE USA programmes, the published institutional catalogues/bulletins (as required by the CCE USA) were important data sources, even though the ease of locating this material on the institutions' websites and the level of detailed content considerably differed among the institutions. Further, it was also difficult to find contact information for targeted faculty members, such as programme directors or directors of studies in the programmes under the supervision of CCEA and CCE USA. In addition, obtaining mail responses from these institutions was much more challenging than from the educational institutions within ECCE and CCEC.

Educational institutions

At the time of data collection, 36 chiropractic educational institutions, scattered among 11 countries within CCEI and CCE USA, were identified. In total, 53% of these institutions were in North America, 14% in Australia, 8% in the UK and 25% in the rest of the world (Figure 1).

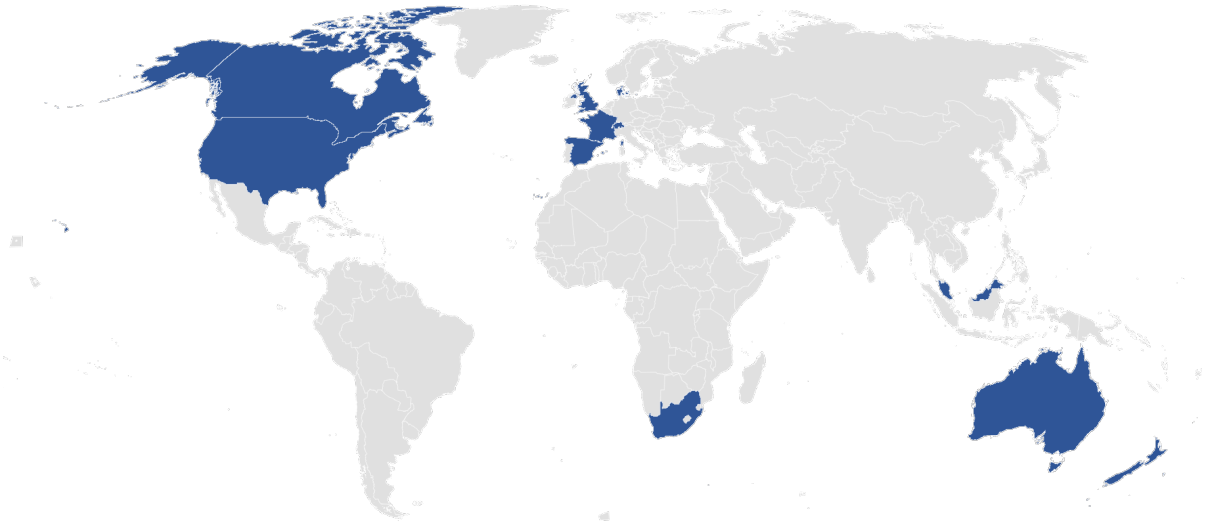

Figure 1. Countries with chiropractic educational institutions included in this report.

Most chiropractic institutions were independent private non-profit organizations (58%) or integrated into private non-profit universities (14%). Less than one-third of the institutions were integrated into public-funded universities (28%). These public-funded chiropractic educational institutions were more prevalent in Europe and Australia.

In the US, many chiropractic educational institutions, previously labelled as colleges, have been converted to universities (private). Universities in the US need to offer multiple programmes to be recognized as universities. However, in this report, these institutions have been identified as independent private non-profit institutions. Further, in this report, integrated institutions have been characterized as follows:

- Programmes that are incorporated in educational institutions offering multiple programmes and courses at first, second and third cycle education or training other recognized licensed healthcare providers such as medical doctors, dentists, nurses and physiotherapists; or
- Programmes that offer educational paths other than chiropractic/health care/medicine, such as law, engineering and economics

European and South African institutions

Within ECCE, ten educational institutions are dispersed over six countries, with half integrated within public funded universities (Table 1). At the time of analysis, two new programmes in the European context, specifically, the London South Bank University (public educational institution) and Teesside University (public educational institution), indicated that they wanted to apply for ECCE accreditation and would most likely apply for the same once their first cohorts graduated.[22] It was also noted that the AECC has applied to change the institution's name to Health Sciences University.[23]

Table 1. ECCE-accredited institutions.

Institution	Acronym	Location	Official* or private qualification	Public# or private institution
AECC University College[a]	AECC/HSU	Bournemouth (UK)	Official	Integrated (private non-profit)‡
Barcelona College of Chiropractic	BCC	Barcelona (Spain)	Private	Independent - private non-profit
Durban University of Technology	DUT	Durban (South Africa)	Official	Integrated (public)
Institut Franco-Européen de Chiropraxie	IFEC	Paris, Toulouse, France	Official	Independent - private non-profit
McTimoney College of Chiropractic	MCC	Oxfordshire (UK)[b]	Official	Independent - private non-profit‡
RCU Escorial Maria-Cristina (Madrid College of Chiropractic)	RCU	Madrid (Spain)	Private	Independent - private non-profit
University of Southern Denmark	SDU	Odense (Denmark)	Official	Integrated (public)
University of Johannesburg	UJ	Johannesburg (SA)	Official	Integrated (public)
University of South Wales – Welsh Institute of Chiropractic	WIOC	Treforest (UK)	Official	Integrated (public)
University of Zurich	UZH	Zurich (Switzerland)	Official	Integrated (public)

[a] As from autumn 2024 the institution is named Health Sciences University (HSU)
[b] Additional educational sites in Manchester, Madrid and Hong Kong
*Official = government recognised qualification from a government registered educational institution
#Public = Defined here as a public university that is owned by the state or receives significant funding from a government.
‡ Publicly (government) funded, government registered educational institution.

[22] Direct communication with ECCE president, Chris Yelverton (2024-02-05)
[23] https://www.officeforstudents.org.uk/publications/proposed-new-name-for-aecc-university-college/ (2024-02-29)

Australasian institutions

Among the CCEA-recognized programmes, seven chiropractic educational institutions are scattered between Australia, New Zealand and Malaysia (Table 2). Four out of the five Australian programmes were integrated into public-funded universities. Unfortunately, one integrated programme (RMIT) was closed in 2023.[24] However, a presumptive programme is underway in Hong Kong – an extension of the McTimoney College of Chiropractic. However, they have not yet indicated an intent to apply for accreditation with CCEA at this stage, though they are likely to do so.[25]

Table 2. CCEA-accredited institutions.

Institution	Abbreviation	Location	Type of institution
Australian Chiropractic College	ACC	Adelaide (Australia)	Independent - private non-profit
Central Queensland University	CQU	Mackay (Australia)	Integrated (public)
International Medical University	IMU	Kuala Lumpur (Malaysia)	Integrated (private non-profit)
Macquarie University	MU	Sydney (Australia)	Integrated (public)
Murdoch University	MURD	Perth (Australia)	Integrated (public)
New Zealand College of Chiropractic	NZCC	Auckland (New Zealand)	Independent - private non-profit
RMIT University	RMIT	Melbourne (Australia)	Integrated (public)

[24] https://www.rmit.edu.au/study-with-us/levels-of-study/undergraduate-study/bachelor-degrees/bachelor-of-health-sciencebachelor-of-applied-science-chiropractic-bp280 (2024-01-29)

[25] Direct communication with CCEA chairperson, Terry Crisp (2024-02-05)

North American institutions

Most of the gauged chiropractic educational institutions in this report, 19 out of 36 (53%), are located in North America. The North American higher education systems have many similarities and differences.

Canada

Within CCEC, there were two chiropractic programmes – one educational institution in Ontario and the other in Quebec, with the latter incorporated into a public university (see Table 3).

Table 3. CCEC-accredited institutions

Institution	Abbreviation	Location	Type of institution
Canadian Memorial Chiropractic College[a]	CMCC	Toronto, Ontario	Independent - private non-profit
Université du Québec à Trois-Rivières	UQTR	Trois-Rivières, Québec	Integrated (public)

[a] Accredited by the CCEC and the CCE USA.

USA

CCE USA has 17 recognized chiropractic institutions, 16 in the US and 1 in Puerto Rico. Overall, 5 of the 17 programmes (29%) are characterized as colleges and 12 (71%) as universities. This report categorized four as independent private non-profit universities and eight as integrated private non-profit universities (Table 4).

Hence, there is a connotational difference between universities in most parts of Europe and universities in the US. No public-funded educational institutions in the US were detected in this report. However, it was recently disclosed that the University of Pittsburgh will be the first educational institution in the US to offer a chiropractic programme integrated into a research-intensive public university, with its first cohort beginning in August 2025.[26] Further, Campbellsville University (Kentucky) has commenced an initial accreditation application with the CCE US.[27]

[26] https://www.shrs.pitt.edu/chiropractic (2024-02-24)
[27] Direct communication with CCE officer (2024-02-05)

Table 4. CCE US accredited institutions.			
Institution	**Acronym**	**Location**	**Type of institution**
Cleveland University	CU	Kansas City, Kansas	Independent - private non-profit
D'Youville University	DYU	Buffalo, New York	Integrated (private non-profit)
Keiser University	KU	West Palm Beach, Florida	Integrated (private non-profit)
Life Chiropractic College West	LCCW	Hayward, California	Independent - private non-profit
Life University	LU	Marietta, Georgia	Independent - private non-profit
Logan University	LOGU	Chesterfield, Missouri	Independent - private non-profit
National University of Health Sciences	NUHS	Lombard, Illinois	Independent - private non-profit
Northeast College of Health Sciences	NCHS	Seneca Falls, New York	Independent - private non-profit
Northwestern Health Sciences University	NWHSU	Bloomington, Minnesota	Independent - private non-profit
Palmer College of Chiropractic	PCC	Davenport, Iowa[a], Port Orange, Florida	Independent - private non-profit
Parker University	PU	Dallas, Texas	Independent - private non-profit
Sherman College of Chiropractic	SCC	Boiling Springs, South Carolina	Independent - private non-profit
Southern California University of Health Sciences	SCU	Whittier, California	Independent - private non-profit
Texas Chiropractic College	TCC	Pasadena, Texas	Independent - private non-profit
Universidad Central Del Caribe[b]	UCDC	Bayamón (Puerto Rico)	Integrated (private non-profit)
University of Bridgeport	UB	Bridgeport, Connecticut	Integrated (private non-profit)
University of Western States	UWS	Portland, Oregon	Independent - private non-profit

[a] Main campus

[b] Accredited by the CCE USA and part of the CCE-LA

Overall, 47% of the educational institutions analysed in this report are in the US. There is a somewhat inconsistent spread of chiropractic educational institutions in the US (Figure 2), with three states having more than one chiropractic educational institution.

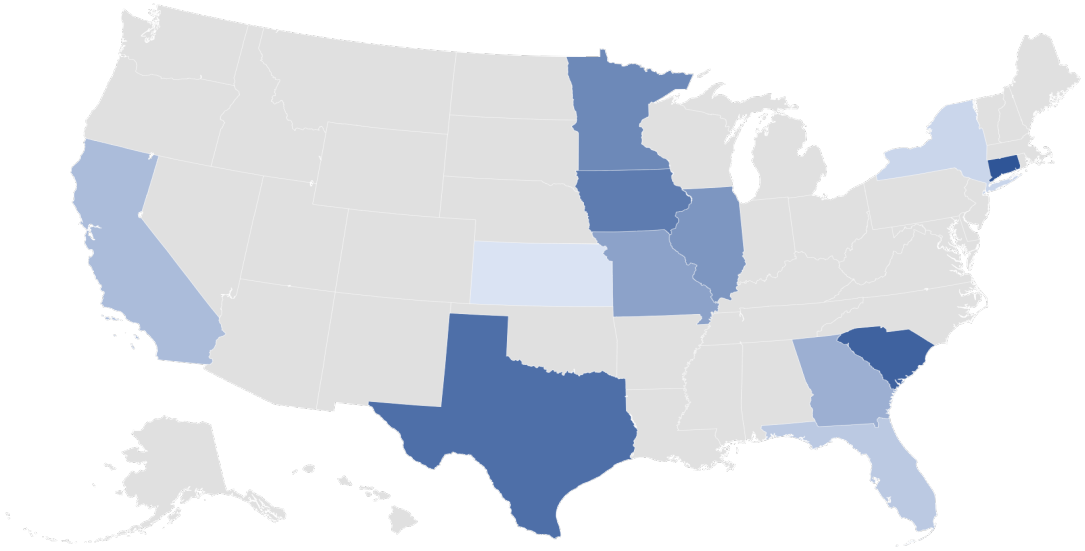

Figure 2. Depiction of the scatter of educational sites by state in the US (Puerto Rico not included in the illustration).

Nationally recognized institutions

In total, 94% of the investigated institutions were listed in public national databases as recognized higher education institutions. Among the ECCE and the CCEA-recognized institutions, this information was mostly accessible from the websites of governmental or national accrediting agency authorities.

In Canada, no central authority determines the standard of higher education, and each educational institution is responsible for setting the standard. However, a publicly available register, the Canadian Information Centre for International Credentials (CICIC), lists the approved educational institutions for each Canadian province.[28]

An educational institution needs to be recognized by CHEA in the US. The CHEA database provides programme and institutional accreditation information, whereas the CCE USA executes the former. Institutional accreditation is performed on a regional basis. According to the CCE accreditation standards, institutional accreditation is compulsory, even though this is not a requirement for being listed in the CHEA database. Overall, 16 of the 17 analysed institutions were identified in the CHEA database.[29] In terms of institutional accreditation, there is a wealth of regional accrediting agencies, but the most common among the CCE USA accredited programmes were the Higher Learning Commission (n = 5), Southern Association of Colleges and Schools Commission on Colleges (n = 5), WASC Senior College and University Commission (n = 2) and Middle States Commission on Higher Education (n = 2).

Entry requirements

In concordance with Peterson et al.,[30] this benchmarking project recognized that the pre-educational requirements extensively vary among the investigated scholarly institutions. Nearly all institutions investigated in this report offered different entry pathways, but the overarching requirements have been described in this section.

Although entry requirements vary in the UK, five General Certificates of Secondary Education (GCSEs), including English and math, and three Advanced levels (A-levels), including one in science, are generally required. In France, the entry requirement is an upper secondary degree, a baccalaureate. In Spain, students must complete higher secondary (high school), and higher education admissions are primarily based on accumulated grades. The applicants must have also studied science, preferably biology and chemistry. In Denmark and Switzerland, the entry requirements for presumptive chiropractic students are the same as for medical students. Similar to Spain, students directly gain admission into the chiropractic programme from a high school programme tailored for the academically gifted with a strong focus on language, mathematics, physics, biology and chemistry. In Switzerland, the main qualification for entrance is passing a written medical aptitude examination at a sufficient level.

[28] https://www.cicic.ca/ (2024-02-27)

[29] Due to the geopolitical situation, Universidad Central Del Caribe is not listed in CHEA database but withholds institutional accreditation with Middle States Commission on Higher Education.

[30] Peterson et al. The Councils on Chiropractic Education International Mapping Project: Comparison of member organizations' educational standards to the Councils on Chiropractic Education International Framework Document. J Chiropr Humanit. 2022 Jul 17; 29:1–6.

In South Africa, a National Senior Certificate (NTC), equivalent to the A-Levels, is required to gain admission into university. The NTC is provided to a candidate with minimum scores in English, mathematics, physical sciences and life sciences.

The entry prerequisites differ in Australia. Generally, an Australian Senior Secondary Certificate of Education (Year 12) is required to be eligible for undergraduate programmes, and the recommended subjects include mathematics, chemistry, biology and physics. The entry process for chiropractic students in New Zealand is close to the Australian model.

Chiropractic education is regarded as a graduate degree programme among the CCE USA accredited programmes. Consequently, per CCE's enrolment guidelines, educational institutions require an equivalent of three academic years of undergraduate university studies (90 semester hours), with roughly one-third minimum dedicated to life and physical science. US educational systems tend to focus on the breadth of education, mandating general education courses and exposing students to a variety of fields, whereas European educational systems tend to favour depth, focusing more on a specific area of study.

In Canada, the institutions in Ontario follow CCE's enrolment guidelines, whereas the Quebec institutions adhere to the European model with an upper secondary school diploma and a science focus, including science prerequisites in physics, mathematics and biology.

Many investigated educational institutions offer programmes/diplomas/foundation years for presumptive applicants who do not meet the basic entry requirements. However, this seems more prevalent among private independent institutions than public-funded establishments. The US system commonly uses the Alternative Admissions Track Plan (AATP) for prospective applicants who do not meet the standard entry requirements.

Variations in the prerequisites may impede the international mobility of graduate chiropractors. Therefore, understanding global differences and variations in the pre-chiropractic educational systems and subsequent entry requirements is important for regulatory agencies. As postulated by other investigators, the profession must strive to focus on coherent outcome-based education (OBE) and less on the various prerequisite demands and models.[31]

[31] Peterson et al. The Councils on Chiropractic Education International Mapping Project: Comparison of member organizations' educational standards to the Councils on Chiropractic Education International Framework Document. J Chiropr Humanit. 2022 Jul 17; 29:1–6

Educational structures of chiropractic institutions

There are significant variations in chiropractic programmes offered by educational institutions across different regions of the world, with programme durations ranging from 3.3 to 6 years, depending on the country and its educational system.

In North America, where 17 out of the 36 (47%) investigated institutions are located, with one institution in Canada (Ontario), chiropractic education consists of two cycles – an undergraduate academic cycle and a graduate professional cycle (see Figure 3). Consequently, chiropractic is only available as a graduate degree, requiring students to complete 2 to 4 years of undergraduate study.

On the other hand, in Europe, South Africa and Australasia, the common path involves pursuing an undergraduate programme in chiropractic, which typically spans five or six years. Therefore, a single longer programme is prevalent. Students can directly enrol in a degree programme after completing upper secondary school. However, students with the necessary entry-level requirements may undertake a fast-track programme that can be completed in four years. Among the accredited educational institutions under the CCEI umbrella (ECCE, CCEA and CCEC), an abundance of academic degrees (Tables 5–7) are issued across the different countries, as articulated by other researchers.[32] These contextual and cultural differences and connotational disparities must be recognized and acknowledged. However, due to this variation in credentials, it is not possible to determine the quality of chiropractic education solely by the degree title.

Structure of European and South African institutions

An analysis of the institutions' programmes has revealed differences in the duration, structure and credits (Table 5). Most educational institutions are organized in accordance with the European Community Directive and the Bologna Declaration.[33]

[32] CCEI Policies: Policy 5 - Equivalence of Standards and Degrees (2019).

[33] Patrício et al. Implementation of the Bologna two-cycle system in medical education: Where do we stand in 2007? — Results of an AMEE-MEDINE survey. Med Teach. 2008; 30:597–605.

Table 5. Educational structure of ECCE accredited institutions.

Institution	Degree	Length	Calendar structure	Mode	Language	Local credits	ECTS
AECC/HSU	Master of Chiropractic - MChiro (Hons)[a]	4–5 years[b]	8–10 semesters	Full-time	English	480[c]	300[d,e]
BCC	Titulo Superior en Quiropràctica & Master en Quiropràctica[f]	5 years (4 + 1)	10 semesters	Full-time	English & Spanish		300[g]
DUT	Bachelor of Health Sciences in Chiropractic + Master of Health Sciences in Chiropractic	5 years (4 + 1)	10 semesters	Full-time	English	732[h]	300[i]
IFEC	Diplôme de Chiropraxie	5 years	10 semesters	Full-time	French		300
MCC	Master of Chiropractic (MChiro)[j]	4–5 years[k]	8–10 semesters	Full-time or part-time	English	480[l]	300[d,e]
RCU	Titulo Superior en Quiropràctica & Master en Quiropràctica[f]	5 years	10 semesters	Full-time	Spanish & English		300[g]
SDU	BSc Clinical Biomechanics & MSc Clinical Biomechanics	5 years (3 + 2)	10 semesters (6 + 4)	Full-time	Danish		300[m]
UJ	Bachelor of Health Sciences in Chiropractic + Master of Health Sciences in Chiropractic	6 years (4 + 2)	10 semesters (8 + 4)	Full-time	English	660[n]	300[i]
WIOC	Master of Chiropractic	4–5 years[b]	8–10 semesters	Full-time	English	480[c]	300[d,e]
UZH	Bachelor of Medicine & Master of Chiropractic	6 years[o]	12 semesters (6+6)	Full-time	German		360[p]

[a] Also offers postgraduate degrees, MSc Chiropractic, for students who aspire to obtain a postgraduate MSc qualification upon completion of their studies. These tailor-made degrees may be advantageous for a career in research or academia.
[b] Depending on gateway year/foundation year/access diploma
[c] Credit Accumulation and Transfer Scheme (CATS) + 120 CATS for gateway/foundation year
[d] Based on a five-year programme. All UK programmes offer a foundation/access diploma (60 ECTS) for those students who do not have the basic science to enter directly. Hence, students with required requisites can complete a 240 ECTS program.
[e] The UK requires 300 ECTS as the minimum for chiropractic registration.
[f] Two types of master's degrees are awarded in Spain. Masters "propio", in contrast to the Masters "official", does not allow access to PhD programmes.
[g] 240 + 60 (Masters propio)
[h] 544 credits (NQF level 8) + 188 credits (NQF level 9).
[i] Estimated approximation of ECTS based on several data such as literature search, programme duration and interviews.
[j] Degree awarded by Ulster University
[k] Depending on the programme mode
[l] Alternatively 90 x 4 + 120.
[m] 180 (Bachelor's level) & 120 (Master's level).
[n] 480 credits (NQF level 8) + 180 credits (NQF level 9)
[o] See table 9 for further details.
[p] 180 (Bachelor's level) & 180 (Master's level).

Structure of Australasian institutions

Discrepancies were identified among the programmes of the analysed CCEA institutions in terms of duration, format and credit allocation. As previously mentioned, among the CCEA-accredited educational institutions, as with the ECCE institutions, the data revealed a wealth of issued academic degrees (see Table 6), as pointed out by the CCEI.[34] There was more similarity and coherence between the public-funded universities. All the investigated CCEA institutions provided clear and comparable conversions from local credits to ECTS. This was done in institutional or national steering documents or through other types of communication. This is despite the fact that Australian educational institutions do not have a unified credit system. ACC showed similarities with NZCC as the curriculum model followed by the ACC builds upon the educational model of NZCC, albeit modified to suit the local context.

[34] CCEI Policies: Policy 5 - Equivalence of Standards and Degrees (2019).

Table 6. Educational structure of CCEA accredited institutions.

Institution	Degree	Length	Calendar structure	Mode	Language	Local credits	ECTS
ACC	Diploma of Health Science[a], Bachelor of Chiropractic[b]	4–5 years[c]	8–10 semesters	Full-time	English	480[d,e]	240[f]
CQU	BSc. (Chiropractic)[g], Master of Clinical Chiropractic[g]	5 years	6 semesters+ 4 trimesters	Full-time or part-time	English	288[e,h]	300[i]
IMU	BSc. (Hons) in Chiropractic	5 years	10 semesters	Full-time	English	173	260[i]
MU	Bachelor of Chiropractic Science, Master of Chiropractic	5 years (3 + 2 - 3)[j]	10 semesters (6 + 4 - 6)	Full-time or part-time	English	480[e]	300[i]
MURD	BSc. in Chiropractic Science, Bachelor of Clinical Chiropractic	5 years (3 + 2)	10 semesters (6 + 4)[k]	Full-time or part-time	English	120[e]	300[i]
NZCC	Bachelor of Chiropractic	5 years	10 semesters	Full-time	English	480	240[i]
RMIT	Bachelor of Health Science, Bachelor of Applied Science (Chiropractic)	5 years	10 semesters	Full-time	English	480[e]	300[i]

[a] Level 1
[b] Level 2–5
[c] Depending on the type of entry
[d] + 96 credits for the diploma level
[e] Australian educational institutions have no unified credit system.
[f] Based on the institution's referral to coherence with the NZCC curriculum model.
[g] Bachelor is referred to as undergraduate, and master is referred to as graduate
[h] Bachelor 144 credits and master 144 credits.
[i] ECTS credit conversions retrieved from institutional documents.
[j] Possible to enter the second year of the three-year Master's program.
[k] Integrated degrees–- Third-year Bachelor of Science in chiropractic units count as credits towards both degrees.

Structure of North American institutions

The North American higher education systems have been discussed earlier in this report, highlighting the similarities and differences. The Canadian education system is recognized for its consistency and cost-effectiveness, which lays a strong groundwork for academic endeavours. On the other hand, the American education system stands out for its variety and adaptability, as it grants students access to a broad selection of programmes and experiences.

As depicted in Figure 3, the education system in the US and many parts of Canada (not Quebec) is characterized by a division between the basic undergraduate level, which ends with the associate degree and/or the bachelor's degree, and the graduate level, which leads to master's degree and/or Doctor of Philosophy (PhD). A bachelor's degree is a general degree that is normally obtained after four years of study at the undergraduate level. Bachelor's programmes give access to master's studies and first professional degree level studies. First professional degrees such as Doctor of Chiropractic (DC), Doctor of Medicine (MD) and Doctor of Physical Therapy (DPT) are, despite the name, not third cycle education (postgraduate) level educations, but rather professional degrees at the graduate level (second cycle). The programmes usually include 3–4 years of full-time studies after completing the bachelor's degree.

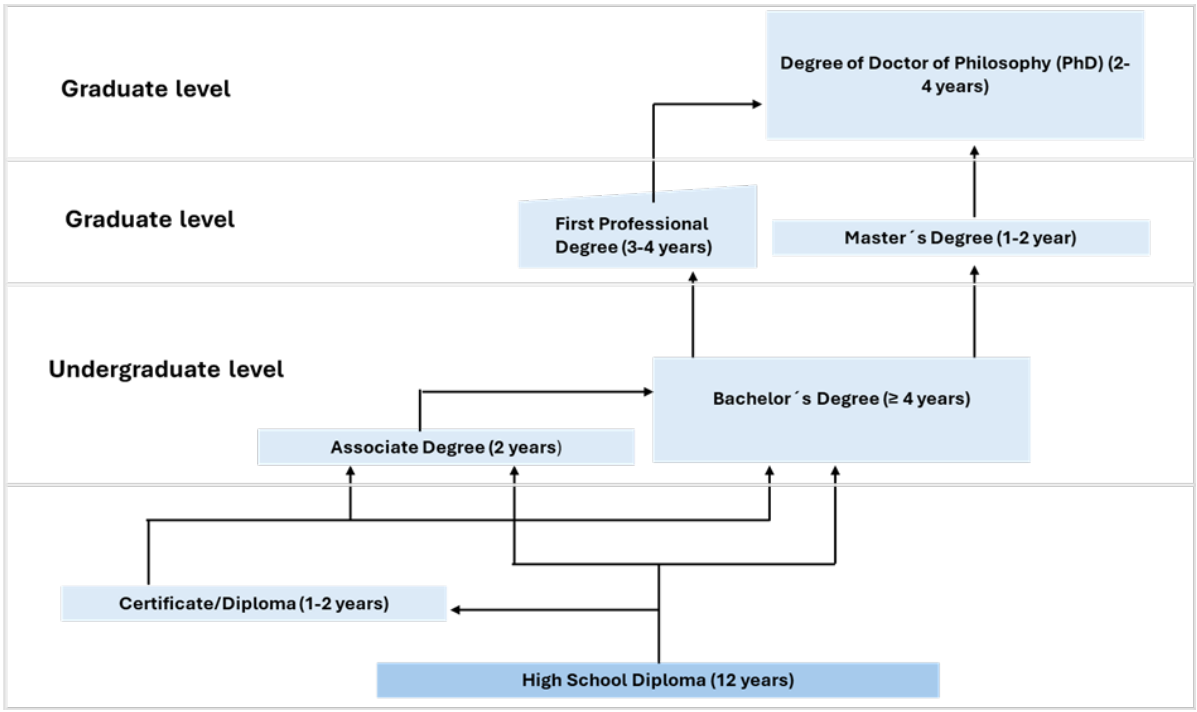

Figure 3. Delineative flowchart of the education system in the US.

Canada

Canadian provinces bear the primary constitutional responsibility for higher education in the country. Some differences characterize higher education in Ontario and Quebec. While both provinces offer high-quality higher education, there are notable differences in language, university systems, entry requirements, degree recognition and government policies. Quebec's higher education system is unique compared to the other nine and three Canadian provinces and territories, respectively. The two biggest differences between the two institutions are as follows:

1. Admission requirements – CMCC is a graduate programme, whereas UQTRT is a longer undergraduate programme (Table 7), and
2. CMCC is not a 'university' but has 'ministerial consent' to grant the degree in Ontario, which is classified as a second-entry baccalaureate degree programme, similar to other healthcare professional degree programmes such as medicine and dentistry.

Table 7. Educational structure of CCEC.

Institution	Degree	Length	Calendar structure	Mode	Language	Local credits	ECTS
CMCC	Doctor of Chiropractic[a]	4 years	8 semesters	Full-time	English	[b]	≈240[c]
UQTR	Doctorat de chiropratique[d]	5 years	9 semesters + 1 trimester	Full-time	French	245[e]	≈300[c]

[a] Graduate level, also known as the first professional degree [referred to as an applied bachelor's degree according to the Canadian Information Centre for International Credentials (CICIC)].
[b] Number of credits is not mentioned in data retrieved from the institution. In Canada, there is no uniform system for credits. According to the Swedish Council for Higher Education (UHR), educational systems in Canada usually consist of two study semesters and approximately 30 credits per year.
[c] Estimated approximation of ECTS based on several data such as literature search, programme duration/mode and discussions with Swedish governmental officers due to institutional lack of information regarding credit conversion to ECTS.
[d] UQTR is recognized as a university degree-granting institution and is provisionally regulated. The regulation states the degree as a 'Doctorat de premier cycle en chiropratique' but is commonly addressed as 'Doctorat en chiropratique'.
[e] 227 mandatory credits + 18 elective credits

USA

To become a chiropractor in the US, a minimum of three years of undergraduate study is necessary, which includes a prescribed science content. An increasing number of US states have been mandating a bachelor's degree for licensure. At present, most candidates enrolling in chiropractic educational institutions have secured their bachelor's degrees, whereas others may achieve it through concurrent programmes offered by the institutions.[35] Among the investigated programmes, many offered their own or partnership undergraduate programmes. Educational institutions in states requiring a bachelor's degree for licensure offered undergraduate degree programmes. According to CCE standards, the educational curriculum typically lasts between three-and-a-half and five years, with a minimum of 4,200 instructional hours.[36] Some programmes extend their curriculum over a longer period and can take five years to complete. Others cover more in a shorter period and take significantly less time to complete.

It is cumbersome to compare US educational institutions with European institutions with respect to the time because of the i) undergraduate bachelor requirement, ii) large variations in length and iii) structural differences (Table 8). With regard to structural differences, the authors imply the eclectic utilizations of semesters, quarters and trimesters. Most (53%) of the US chiropractic institutions use trimesters. This is a bit surprising, as it has been reported that in the USA[37] most higher education institutions employ a semester-oriented academic calendar. It might be that studying in a trimester system strikes a middle ground between the denser quarter system and the more prolonged semester system.

With respect to ECTS, the investigated US educational institutions provided no comparative information. This finding is in direct contrast with established, heavily research-driven, private institutions such as Massachusetts Institute of Technology (MIT), Harvard University or Stanford University or public institutions such as University of California – Los Angeles (UCLA), University of Michigan or Pittsburgh University. In the case of these institutions, with a high flux of international students and scholars, information regarding ECTS comparability is often more readily available through the ENIC-NARIC database and/or local institutional steering documents, including ECTS conversion tables.

[35] https://fclb.org/chiropractic-professional-regulation-faqs.php (2024-03-01)
[36] The Council on Chiropractic Education - CCE accreditation standards. Principles, processes & requirements for accreditation, 2021.
[37] https://www.studyusa.com/en/a/1235/what-is-the-difference-between-quarters-semesters-and-trimesters (2024-03-01)

Table 8. Educational structure of CCE USA accredited institutions.

Institution	Degree*	Length	Calendar structure	Mode	Language	Local credits	ECTS**
CU	DC	3.3 years	10 trimesters	Full-time	English	236.5	≈240
DYU	DC	3.5 years	11 trimesters	Full-time	English	208.5	≈240
KU	DC	3.3 years	10 semesters	Full-time	English	217	≈240
LCCW	DC	3.5 years	14 quarters	Full-time	English	262.5	≈240
LU	DC	4 years	14 quarters	Full-time	English	342	≈240
LOGU	DC	3.3 years	10 trimesters	Full-time	English	233	≈240
NUHS	DC	3.3 years	10 trimesters	Full-time$_1$	English	248	≈240
NCHS	DC	3.3 years	10 trimesters	Full-time	English	224	≈240
NWHSU	DC	3.3 years	10 trimesters	Full-time	English	224	≈240
PCC	DC	3.3 years	10 trimesters	Full-time	English	173[a]/224[b]	≈240
PU	DC	3.3 years	10 trimesters	Full-time	English	224.5	≈240
SCC	DC	3.5 years	14 quarters	Full-time	English	376	≈240
SCU	DC	3.3 years	10 terms[c]	Full-time	English	215.5	≈240
TCC	DC	3.3 years	10 trimesters	Full-time	English	220.5	≈240
UCDC	DC	4 years	8 semesters	Full-time	English & Spanish	209	≈240
UB	DC	4 years	8 semesters	Full-time	English	191.5	≈240
UWS	DC	3–4 years[d]	12 quarters	Full-time	English	259	≈240

* All CCE USA educational institutions award a Doctor of Chiropractic, a degree at the graduate level, specifically a first professional degree.

** Estimated approximation of ECTS based on several data such as literature search, programme duration/mode and discussions with Swedish governmental officers due to institutional lack of information regarding credit conversion to ECTS.

[a] Davenport campus

[b] Port Orange campus

[c] Stated as semesters on the institutional webpage.

[d] Students can take summers off and complete the programme in four years.

Due to differences in educational institutions and techniques, translating US credits to ECTS credits can be difficult and subjective. However, institutions may apply global standards to convert credits. The European credit system (ECTS) is based on students' effort, with 60 ECTS credits equalling a full-time academic year. In the US, institutions usually provide one credit for 25–30 hours of student work. This author believes educational institutions should be encouraged to equate local credits to other well-established credit systems, such as the ECTS, through institutional information and/or conversion tables.

Pedagogical frameworks to support programme outcomes

One of the aims of this commissioned report was to identify any notable themes, trends and variances within the investigated programmes. This evaluation identified many similarities among the introspected educational institutions with regard to their pedagogical frameworks. Although not identical, there are strong parallels, and it was noticeable that the institutions are scaffolded in standards that emphasize outcome-based chiropractic education. Others have reported similar findings.[38]

Outcome-based education (OBE) has substantially improved health professions education over the last ten years.[39] OBE is a pedagogical model that may be defined in several ways. The most widely used definition is one by William Spady, *"Outcome-based education organizes the curriculum, instruction, and assessment around the essential competencies that all students should possess at the end of the learning experience"*.[40] Thus, OBE should be learner-centred, individualized and directed towards standards that support the learners in achieving the programme outcomes. OBE has propelled the transition from a process-oriented to a product-oriented approach in education, warranting graduates' quality of education and facilitating the global movement of healthcare workers.

One of the aims commissioned by the ECU in this report was to quantify the evaluated chiropractic programmes with credits and course content. Although all the examined institutions are OBE-driven, a comparative assessment of programme learning outcomes was not performed. In the future, engaging in a cross-institutional comparison regarding the learning outcomes among the educational providers within CCEI and CCE USA would be interesting. Others have supported a stronger educational focus on outcome-related parameters. [41,42]

The degree programmes from the investigated institutions generally consist of the following three main phases of education: science courses focusing on the human body, courses in clinical and chiropractic sciences and hands-on clinical internships (see Appendix 1 for more detailed data). These phases were, to a greater and lesser extent, integrated vertically and horizontally. On reviewing the curricula, it is evident that the explored institutions encompass a combination of informing science disciplines (basic sciences) and diagnostic and therapeutic disciplines (clinical sciences), ensuring that graduates are well-prepared to safely and competently practice chiropractic.

[38] Peterson et al. The Councils on Chiropractic Education International Mapping Project: Comparison of member organizations' educational standards to the Councils on Chiropractic Education International Framework Document. J Chiropr Humanit. 2022 Jul 17; 29:1–6.
[39] Er et al. Twelve tips for institutional approach to outcome-based education in health professions programmes. Med Teach. 2021 Jul; 43(sup1):S12–S17.
[40] Spady W G (1994). Outcome-based Education: Critical issues and answers. American Association of School Administrators, Arlington.
[41] Peterson et al. The Councils on Chiropractic Education International Mapping Project: Comparison of member organizations' educational standards to the Councils on Chiropractic Education International Framework Document. J Chiropr Humanit. 2022 Jul 17; 29:1–6.
[42] Direct communication with past president of CCEI, Cynthia Peterson (2024-01-23)

Most programmes articulated evidence-based care methods and adopted a biopsychosocial model. The educational institutions had a strong pedagogical, student-centred and active learning focus. Therefore, from the retrieved educational information, teaching was approached from the perspective that students are co-creators of and bear responsibility for their learning and must process the content themselves to expand their knowledge. Further, there was a strong focus on progressive self-directed learning and reflective practice and support for continuing professional development after graduation. Among the educational institutions, there was a strong focus on the fact that graduated chiropractors must possess the capabilities and expertise required for independent practice and evidence-informed management of individual patients in the context of chiropractic – a modern, regulated healthcare profession.

The author strongly believes that the CCEI and CCE USA educational standards and the harmonization between accrediting agencies are imperative and strong driving factors in creating educational visions among accredited chiropractic educational institutions. The CCEI and CCE USA programme standards do not (and should not) impose comprehensive curriculum content. Instead, each educational framework must constructively align its program's curriculum to articulate *outcomes* – what learners should be able to achieve on the completion of a programme or a course, TLAs, what learners need to do to achieve the outcomes and *assessments* and what learners need to show to convey that they have achieved the outcomes.

The author noted three primary observations in this evaluation regarding the pedagogical frameworks to support programme outcomes.

First, there were discrepancies among the educational institutions with regard to the course/module formats. Some institutions had a more traditional educational programme structure, with a shorter but greater number of courses. In comparison, other institutions were structured around longer modules with more integrated content. Although there is no best way to educate a competent chiropractor, this evaluator believes it is easier to integrate the curriculum in concordance with the Edinburgh Declaration[43] and create apt learning environments with longer and more integrated courses/modules in a programme. The term 'integration' is frequently used in healthcare professional education to encompass a wide range of educational practices. Horizontal integration within a curriculum refers to consolidating previously separate modules or subjects into one. On the other hand, vertical integration in a curriculum involves merging basic sciences with clinical sciences, including skills, diagnostic reasoning, differential diagnoses and management options – relaxing the traditional Flexnerian pre-clinical versus clinical divide.[44]

Second, the author observed that it was more prevalent among the educational institutions in the US compared to Europe, South Africa and Australasia to have no research degree project within the chiropractic programme. A degree project comprises independent work carried out under the supervision of a teacher and/or researcher. The independent work often entails a written thesis with an oral presentation and opposition. This author believes there is great value for higher-education chiropractic students to train to become research ´consumers´ but also experience the role of research ´producers´. Further, this can hinder graduates from pursuing research or academic careers. In the US, the chiropractic degree is a first professional degree and not designed for an academic research pursuit. Additionally, it was observed that optional degree paths are possible for cohorts of chiropractic students with scholarly intentions in one European institution.

[43] Bandiera G. Back from basics: Integration of science and practice in medical education. Med Educ. 2018 Jan; 52(1):78–85.
[44] Hays R. Integration in medical education: What do we mean? Educ Prim Care. 2013 May; 24(3):151–2.

Lastly, as stated above in this section, the CCEI and CCE USA standards are invaluable and imperative for securing a global set of core standards related to outcomes (competencies) of knowledge, attitudes and skills. The standards are congruent and in accordance with the educational policy of the ECU.[45]

Comparing chiropractic educational institutions across the world is a daunting task. However, because of the global spread and cultural and jurisdictional variations of chiropractic professions, considering the respect for the autonomy of the educational programmes, national legislation and regulations, CCEI and CCE USA standards may not be sufficient for optimizing the international mobility and employability of the chiropractic workforce.

Consequently, a CTF (Common Training Framework) should be created in addition to the CCE standards, forming a system for recognizing professional qualifications required for entering a regulated profession. At the European level, it is possible to establish a CTF under the Professional Qualifications Directive (Directive 2005/36/EC). This automatic recognition system is already in place for several health professions (e.g. nurses, midwives, doctors, dentists, pharmacists) and other professions, such as architects.[46] A CTF aims to simplify the acknowledgement of professional credentials among EU nations that enforce limitations on entering a particular occupation due to existing regulatory measures. In the absence of regulations, professionals can freely establish themselves across EU borders without the necessity of formally requesting recognition of their qualifications.[47] In this context, a first step for the ECU could be targeted work towards implementing a CTF across Europe to facilitate mobility for the chiropractic profession within the union.

CTFs do not aim to standardize education or the regulatory frameworks establishing the conditions for practising regulated professions. Further, they do not substitute an EU country's qualifications or training programmes. Instead, they strive to facilitate unrestricted movement. This is accomplished when the participating EU countries reach a consensus on the minimum common aspects of training and regulation.[48] A second step could involve implementing such a CTF at the global level, making it easier for graduates from outside the EU to join the European chiropractic workforce.

[45] Direct communication with ECU Secretary General, Jim Pettipher (2024-03-27)
[46] Professional Qualifications Directive (Directive 2005/36/EC); https://eur-lex.europa.eu/eli/dir/2005/36/oj (2024-03-01)
[47] https://single-market-economy.ec.europa.eu/single-market/services/free-movement-professionals/policy-developments/common-training-frameworks_en (2024-03-02)
[48] Professional Qualifications Directive (Directive 2005/36/EC); https://eur-lex.europa.eu/eli/dir/2005/36/oj (2024-03-01)

License to practice and postgraduate requirements

Healthcare professional requirements refer to the regulations countries implement to ensure the competence of healthcare workers practising within their jurisdictions and regulate the size of the healthcare workforce. These requirements encompass licensure, certification and evidence of minimum training for regulated healthcare professions. Healthcare professionals have to fulfil specific prerequisites mandated by laws governing healthcare practices within the healthcare system. Regulatory boards or health departments in most countries have credentialing staff responsible for documenting the licensing of healthcare workers and their professional backgrounds. In coherence with other reports[49], this evaluation noticed that the procedure, scope and rigour for professional licensure vastly differed among the investigated countries (Table 9)[50].

Table 9. Aggregated requirements for licensing process in countries examined.

Country	Requirements
Australia	Chiropractors must be registered with the Allied Health Practitioner Regulations Authority (AHPRA) through the Chiropractic Board of Australia (CBA) and meet the Board's registration standards. General registration is available to: • Final year students that in the last 6 weeks of an Australian approved program of study, or • Graduates who have completed an Australian approved program of study within the last 12 months, or • Chiropractors who hold a current annual practicing certificate with the New Zealand Chiropractic Board and who are applying.
Canada	Licensing in Canada is a provincial process, but it is a similar process for all 10 provinces, regardless of where candidates graduate from. Comprehensive national examinations are administered by the Canadian Chiropractic Examining Board (CCEB) and must be passed before a student can qualify to become licensed by the regulatory authority in their province of practice. To apply for licensure in any province, a candidate needs: • A valid diploma (CCEC-accredited school, some provinces include CCE-USA schools in their by-laws, other provinces mention "any CCE", and all provinces have a regulation on "equivalency" of diplomas from abroad). • CCEB Examinations. Successfully complete the requirements to receive a CCEB certificate. • Necessary paperwork for licensure with one of the Canadian chiropractic regulatory bodies. Additionally, all provinces have a mandatory ethics and regulation examination (scope and regulation are also provincial and not national so there are minor variations from one province to the other), which is offered many times throughout the year. Chiropractors educated outside of Canada are also required to pass the same Canadian qualifying examinations to become licensed to practice in Canada. Some candidates may have a restricted license for certain professional acts (ex: graduates who do not learn X-ray positioning must complete a additional course to have a full radiology license).

[49] Tulenko et al. Framework and measurement issues for monitoring entry into the health workforce. Handbook on monitoring and evaluation of human resources for health. Geneva, World Health Organization, 2009.
[50] Data reported in table is based on text provided by national regulatory through e-mail correspondence.

Table 9. Aggregated requirements for licensing process in countries examined.	
Country	Requirements
Denmark	An applicant that has a MSc Clinical Biomechanics from SDU automatically receive the authorization. To practice independently, e.g. open own clinic, a rotation year (turnus-year) must be completed. The rotation year is a one-year educational position full time (but can be part-time) with an approved tutor. and consist of both practice and courses (courses are run by Chiropractic Knowledge Hub, financed by the Danish Chiropractic Fund and the Danish Regions). Almost all students from SDU continue with the rotation year directly after finished master. If the someone are trained at a chiropractic educational institution in the EU or is an EU-citizen (but Danish) additional documentations need to be gathered and sent to The Danish Patient Safety Authority. Documents include such as; personal information, educational diploma and the contents of the education. If someone is educated outside the EU (or is a non-EU citizen), they will go through a 3-step process. 1. Verification and approval of education 2. Complete a language test 3. Perform an evaluation-employment at a clinic in Denmark
France	A holder of an IFEC diploma can practice in France, as the educational institution is accredited by the Ministry of Health (done with a cycle of every 5 years). Without this accreditation, the IFEC diploma is no longer valid. Just like all other healthcare professionals in France, graduates from IFEC are required to register their authorization to practice in the Adeli directory with the regional health agency where they intend to practice. For chiropractors who graduated from the European Union, the holder must apply for authorization to practice to the national commission for chiropractor qualifications in Paris. There are two situations depending on country of study: 1. The diploma is obtained in a country where chiropractic is recognized and regulated. The commission will examine the conformity of the training program with the official French program and ensure that the applicant has a command of the French language in a professional context. If these conditions are met, they will grant an authorization to practice, allowing registration with the regional health agency and establishment. If these conditions are not met, there may be a refusal or proposals for internships or exams. 2. The diploma is obtained in a non-EU country where chiropractic is not recognized. In this case, it's more complicated, and the applicant must have worked for a certain period before submitting their application or have authorization to practice in a country that recognizes and regulates the chiropractic profession. In all cases, there will be an assessment of the conformity of the training with French regulatory texts and language proficiency. For chiropractors with diplomas from outside the EU, practicing in France is only possible if the person's diploma allows them to practice in an EU member state or a country that recognizes and regulates the chiropractic profession.

Table 9. Aggregated requirements for licensing process in countries examined.	
Country	Requirements
Malaysia	Graduates from IMU must make an application for Registration as a Traditional and Complementary Medicine (T&CM) Practitioner with the T&CM Council, Ministry of Health. The procedure is a 3-step process: Step 1: Application for Exemption from Provisional Registration 1. Criteria Possession: Having Recognized Qualifications 2. If approved, the applicant will receive Exemption Certificate Step 2: Application for Registration as a Registered Practitioner 1. If do not meeting the Criteria, not Eligible to Register 2. Criteria Possession: Having Recognized Qualifications; OR Attend the T&CM Act 2016 & Obligations of Registered Practitioners Briefing 3. If approved, the applicant will receive Registered Practitioner Certificate Step 3: Application for Practice Certificate for Registered Practitioners 1. If approved, the registered practitioner will receive Practice Certificate for Registered Practitioners. 2. It requires to renew on a yearly basis. Foreign T&CM practitioners shall temporarily register with the T&CM Council and obtain a Temporary Practising Certificate (TPC) if they wish to practise in recognised practice areas in Malaysia. All practitioners must be represented by an organisation from either the public or private sector who will make the application on behalf of the practitioner. Each TPC will have a unique reference number and is valid for not more than twelve (12) months from the date of issuance.
New Zealand	There are two steps to gaining a license to practice in Aotearoa New Zealand - registration and annual practicing certificates. This process is handled by the New Zeeland Chiropractic Board (NZCB). The NZCB is a responsible authority established under the Health Practitioners Competence Assurance (HPCA) Act 2003. The Board's key function is to protect the health and safety of the public by setting the standards for all chiropractors registered to practice in New Zealand. Any chiropractor who wishes to practice in New Zealand is required to register with the Chiropractic Board which is a one-off occurrence. To practice in New Zealand, chiropractors are required to apply for an annual practicing certificate (APC) for each APC year, running from 01 April to 31 March. In addition to the requirements of a NZ trained practitioner, overseas trained chiropractors are required to: • Complete the competency exams managed through CCEA. • Provide certificates of good standing from each overseas jurisdiction they have practiced in. • Provide criminal conviction records for each country they have lived in. Practitioners who are registered with the Chiropractic Board of Australia are not required to complete the same requirements as those trained overseas due to a Trans-Tasman Mutual Recognition Act which allows for "like for like" registration in both countries.
South Africa	The graduates from DUT and UJ are required to complete an internship for registration with the Allied Health Professions Council of South Africa (AHPCSA) which entails aspects such as observations, and patients under supervision (not longer than 6 months), and submission of a portfolio. Practitioners from outside South Africa are required to pass a competency/board examination as set by the AHPCSA.

Table 9. Aggregated requirements for licensing process in countries examined.	
Country	Requirements
Spain	In Spain chiropractic is not legally recognized and therefore not regulated. Recognized professions are regulated through professional colleges, but there is no college for chiropractic. The national association self-regulates the profession through membership. Any graduate from a CCE-accredited institution may become a member of the association and practice with its support. There is no official procedure for chiropractors with training from outside Spain. As long as the person is a legal resident, they can open a business or work for someone. The procedures to open a chiropractic office are fundamentally the same as opening any business, such as a barbershop or a store. In any case, no publicity as a health professional can be used under the risk of being accused of practicing medicine or physical therapy without a license.
Switzerland	After six years of study and successfully passing the federal licensing examination (state examination), the Federal Diploma in Chiropractic is awarded. The federal exam is offered in French and German. The federal exam in chiropractic allows for practice as a chiropractor under supervision in Switzerland. The Federal Diploma entitles the holder to enter the 2.5-year residency program with further training at the Academy of Chiropractic. This covers topics such as the Swiss healthcare system, law, practice management, interdisciplinary co-operation, imaging procedures. Before or after the residency, a student must also complete a medical sub-residency of at least four months in rheumatology, orthopaedics or other relevant medical specialties. After fulfilling these requirements, it is possible to apply for examination in specialist chiropractic. Successful completion of the specialist examination entitles the holder to use the title of Specialist Chiropractor (Postgraduate Title). This is a prerequisite for practicing the profession independently (e.g. in an own practice). An optional doctorate can also be obtained. The doctorate is an academic title. It can be obtained at university, after completing a degree program, and is not a prerequisite for independent professional practice. In addition to this a chiropractor needs a cantonal work permit and a concordat number (SASSI) when working for the social insurances. The requirements for persons educated outside of Switzerland are the same for EU and Non-EU institutions: The educational program must be accredited by the state. Additionally, candidates coming from abroad with a foreign diploma from an accredited chiropractic institution, must have acquired 60 ECTS from a course of study in a Swiss university. It is recommended that these 60 ECTS are acquired in the supplementary Chiropractic Medicine program offered by the University of Zurich with clinical placements in Zurich or Lausanne.
UK	The educational establishment emails General Chiropractic Council (GCC) a list of graduates, and GCC invite them to join the register. The applicant is to provide (electronically): • Proof of identity • Proof of Indemnity Insurance • A health report (provided directly to us buy their GP or doctor) • A Personal Reference (provided directly to us either by the educational establishment or another person of professional standing who has known the applicant for four years). • The registration fee. • A criminal record declaration. If they declare a criminal record, we also require a criminal records check. There are some extra requirements if they graduated more than 2 years ago and have not previously registered in the UK. Since the UK left the European Union (Brexit) the process for joining the register for people with a non-UK chiropractic degree are the same. The candidate must first pass the Test of Competence.

Table 9. Aggregated requirements for licensing process in countries examined.	
Country	Requirements
USA	Each of the individual states in sets their own standards for licensure, although all fifty states have the same basic requirements. In addition to completing a Chiropractic program, candidates must pass the four-part national board exams (Part I, II, III, and IV), through the National Board of Chiropractic Examiners (NBCE). Barring any issues that would prevent the applicant to practice safely, they would be able to receive licensure in any of the fifty states once they met these requirements. Many states require applicants for licensure to also pass the Physiotherapy exam. To become licensed, graduates must send their scores and college transcripts to the state they wish to practice in. Applicant should also check their desired state's chiropractor requirements, as some states have additional and specific license and certification requirements. Some states require a bachelor's degree to become licensed as a chiropractor. At the time of aggregating this report such a requirement was prevailing in 14 of the states and under consideration in 3 states.[51] Each state determines if they will accept applicants for licensure from outside of the US. Many states do not accept degrees from outside the US, and if they do the applicant will still need to pass all of the NBCE exams. According to NBCE[52] most denials to practice are based on the fact that the state boards do not know what is taught in the chiropractic programs outside of the US and are hesitant to grant licensure to applicants from these programs. NCBE recommend that applicants with chiropractic degree from outside of the US, to obtain written confirmation prior to enrolling that the state of their choice will honour a degree from that institution.

[51] https://fclb.org/bachelors-degree-requirements.php, (2024-02-26)

[52] Direct communication with NBCE Vice President of Testing, Bruce Shotts, (2024-02-23)

Chiropractic situation in the world

According to Stochkendahl et al., the chiropractic profession is represented in 90 countries, but the distribution of chiropractic educational institutions, governing legislations and regulations largely favour high-income countries.[53] The World Federation of Chiropractic (WFC) has listed the legal status of chiropractic by country[54], and these data have been depicted in Figures 4-6.

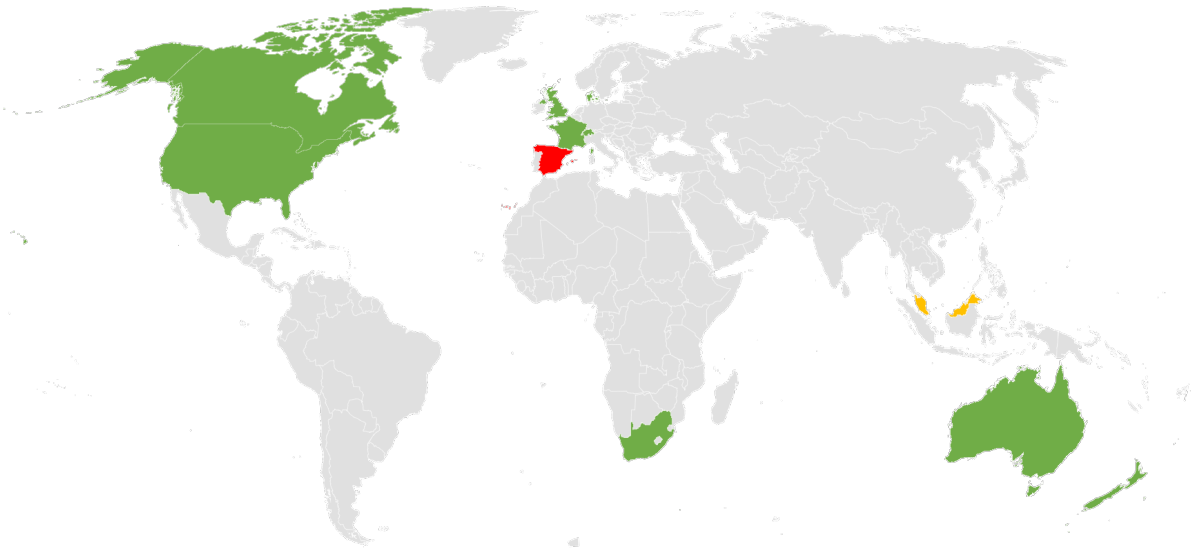

Figure 4. Status of chiropractic by counties under scrutiny in this benchmarking of CCEI and CCE USA accredited institutions = legal pursuant to legislation to accept and regulate chiropractic practice: = legal status unclear, but de facto recognition and: = legal status unclear and risk of prosecution.

Consequently, some countries have clear legislation accepting and overseeing chiropractic practice. In Malaysia, there is professional recognition but with uncertain legal status. In Spain, the legal status remains unclear, posing a risk of prosecution for practising chiropractors. Chiropractic's legal standing across Europe varies by region according to WFC, as depicted in Figure 5.

[53] Stochkendahl et al. The chiropractic workforce: A global review. Chiropr Man Therap. 2019 Jul 24; 27:3

[54] https://www.wfc.org/website/index.php?option=com_content&view=article&id=123&lang=en (2024-02-27)

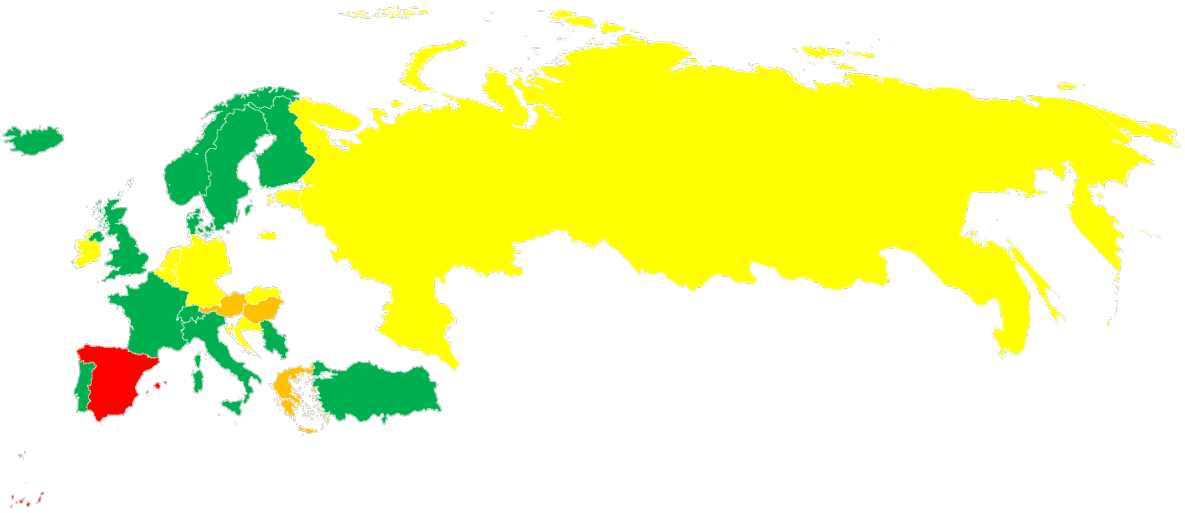

Figure 5. Status of chiropractic by the European region. = legal pursuant to legislation to accept and regulate chiropractic practice: = legal pursuant to general law: = legal status unclear, but de facto recognition and: = legal status unclear and risk of prosecution.

However, Stochkendahl et al.[55] reported slightly different data and conveyed that chiropractic has gained legal recognition in 68 out of 90 countries, accounting for 76% of the total number of countries. However, it is explicitly prohibited in 12 countries. These countries include Egypt in Africa, Argentina and Columbia in South America, Austria, Estonia, Greece and Hungary in Europe and Lebanon, Korea, Taiwan, Turkey and Ukraine[56] in Asia (see Figure 6). In addition, Stochkendahl et al. reported that chiropractic did not have any specific legal framework, or the statutory legislation was unknown in the remaining ten countries.

[55] Stochkendahl et al. The chiropractic workforce: A global review. Chiropr Man Therap. 2019 Jul 24; 27:36.
[56] Hence, Ukraine is in the work by Stochendahl et al. (2019) categorized as Asian region.

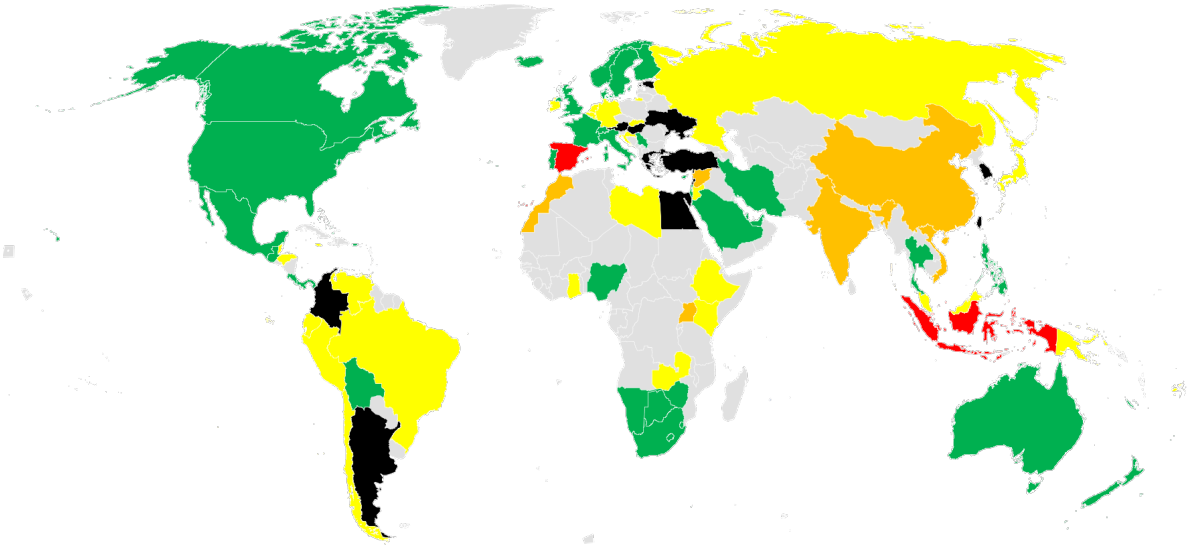

Figure 6. Global acceptability of chiropractors. = legal pursuant to legislation to accept and regulate chiropractic practice: = legal pursuant to general law: = legal status unclear, but de facto recognition: = legal status unclear and risk of prosecution and: = explicitly prohibited.

Reflections and recommendations

The following are some reflections and recommendations based on the analysis of the data collected in this ECU-commissioned report, *'Chiropractic cross-institutional comparison: A benchmarking evaluation of CCEI and CCE USA accredited programmes'*:

- The length of education varied between three and six years, with ECTS credits ranging from 240 (with no foundation/gateway/access year) to 360. Shorter programmes were observed in North America, whereas longer programmes were more prevalent in Europe, South Africa and Australasia. The longest programme was identified in Switzerland. It is crucial to highlight two significant aspects – i) in North America, where numerous institutions are situated, chiropractic education is divided into two cycles – an undergraduate academic cycle (pre-chiropractic) and a graduate professional cycle (chiropractic degree) and ii) the academic calendar format used by many chiropractic institutions, involving trimesters and quarters, necessitates more concentrated studies with fewer breaks for students compared to the semester structure followed in Europe and Australia. Short educational programmes and no degree project in the curriculum, leading to a first professional graduate degree, such as in North America, can prove problematic with regards to prerequisites and required preunderstanding of the scientific method for graduates who want to pursue a third-cycle education (PhD) degree in Europe and elsewhere.
- It is challenging to compare educational institutions globally due to differences in education systems. These systems have evolved mainly based on changing economic, cultural, social and political conditions. The efforts in Europe, with the Bologna Process, to enhance the consistency of higher education systems with a common credit system (ECTS) have been very successful, making educational cross-contrasting easier. However, outside Europe, educational comparisons are more cumbersome.
- Approximating local credits in the US chiropractic programmes to ECTS had to be performed more subjectively, focusing on several data points such as literature search, programme duration and mode and discussions with governmental officers. It was simpler to obtain pertinent data related to CCEA educational institutions, as these institutions offered consistent conversions from local credits to ECTS. This information was made available through institutional or national steering documents and other forms of communication.

  This author recommends that a global organisation such as the Word federation of Chiropractic (WFC) encourage chiropractic educational institutions, national policymaking and legislative agencies, and national member bodies to make ECTS conversion readily available. This aligns with many scholars' arguments that the Bologna Process has and can pave the way for enhanced cooperation and partnerships between EHEA countries and other parts of the world.
- Despite great variations with regard to educational prerequisites, structure and pedagogy among the investigated chiropractic institutions, there is strong homogeneity. The author firmly believes that the CCEI and CCE USA educational standards and the synchronization between accrediting agencies are crucial and powerful catalysts for fostering educational aspirations.

The ECU's education policy mandates that all ECU members must graduate from CCEI (ECCE) or CCE USA accredited chiropractic programs. However, it is important to recognise that in some jurisdictions, these educational standards have less impact, and there should be a stronger move towards collaborating with local and national accrediting agencies and strengthening the recognition of these international standards among national licensing bodies. The ECU collectively assesses the value of chiropractic programs based on their professional accreditation, which is a solid policy for ECU membership. However, the policy fails to acknowledge the varying values of programs in terms of their broader educational and political significance.

- Is the programme in an EU Member State?
- Is the programme in the EU, the EEA, EFTA, or Switzerland?
- Is the programme in a country defined by the EU as a "third country"?
- Is the programme government certified?
- Is the provider a government registered educational institution?
- Is the programme worth 300 or more ECTS?

- As mentioned in this report, the author strongly advocates that the next step for the ECU is to engage in an international multi-site cross-institutional comparison of learning outcomes among educational providers within CCEI and CCE USA, leading to an exploration with a stronger focus on the outcome than on the quantity and content. Such work can streamline and lay the groundwork for cross-border recognition of degrees currently hindered by differences in chiropractic education systems. It has been articulated that while the Bologna Process sought to harmonize the length and structure of degree programmes, it disregarded differences in the content and context of the curricula leading to such degrees.

- Based on this report, the author recommends that, apart from the CCE standards, it is important to consider the development of a CTF to establish a system for acknowledging the professional qualifications necessary for entry into a regulated profession. At the European level, a CTF creation is feasible through the Professional Qualifications Directive, and an automatic recognition system is currently operational for various health professions and occupations.

- The author urges ECU to persist in its endeavours to advocate for accepting and regulating chiropractic practice in European countries where the legal status is unclear or poses a risk of prosecution.

Appendix 1 – Programme Content

Institution	Program content
CCEI	
AECC/HSU	**Year 1:** Clinical Chiropractic I - 20 credits Evidence Based Clinical Reasoning I - 20 credits Professionalism & Psychology - 20 credits Human Structure and Function I - 20 credits Human Structure and Function II - 20 credits Public Health & Health Promotion - 20 credits Year 2: Clinical Chiropractic II - 20 credits Evidence Based Clinical Reasoning II - 20 credits Diagnosis I - 20 credits Diagnosis II - 20 credits Human Structure and Function III - 20 credits Human Dysfunction - 20 credits **Year 3:** Clinical Management I - 20 credits Clinical Management II - 20 credits Auxiliary Therapeutics - 20 credits Special Populations - 20 credits Medical Imaging and Radiology - 20 credits Interprofessional & Collaborative Practice - 20 credits **Year 4:** (In the final year students spend around 20 hours per week on patient management within the teaching clinic. The other 20 hours students are keeping busy between classes and self-directed study.) Clinical Practice and Placement - 60 credits Marketing and Small Business (optional unit*) - 20 credits Professionalism & Social Responsibility - 20 credits Clinical Research Methods - 20 credits Research Placement (optional unit*) - 20 credits *Students must take one of the optional units

BCC	**Year One – Foundation level (60 ECTS)** Human Structure and Function I - 10 ECTS Molecules of Life (Introduction to Biochemistry) - 5 ECTS Human Structure and Function II - 10 ECTS Neurology I - 5 ECTS Clinical Biomechanics and Chiropractic Technique I - 10 ECTS Chiropractic in Society I - 5 ECTS Introduction to the Study of Human Tissues - 10 ECTS Personal Development, Research and Reflective Practice I - 5 ECTS **Year Two – Intermediate level (60 ECTS)** Clinical Biomechanics and Chiropractic Technique II - 10 ECTS Clinical Skills I - 10 ECTS Chiropractic in Society II - 5 ECTS Neurology II - 15 ECTS Radiography Physics and Normal Anatomy - 5 ECTS Pathophysiology - 10 ECTS Personal Development, Research and Reflective Practice II - 5 ECTS **Year three – Intermediate/Higher level (60 ECTS)** Nutrition and Toxicology - 5 ECTS Microbiology and Public Health - 5 ECTS Advanced Chiropractic Technique I - 10 ECTS Clinical Skills II - 15 ECTS Radiology and Special Imaging - 10 ECTS Neurology III - 5 ECTS Chiropractic in Society III - 5 ECTS Clinical Practicum I - 5 ECTS **Year four – Higher level (60 ECTS)** Advanced chiropractic Technique II - 10 ECTS Clinic Integration I - 10 ECTS Chiropractic in Society IV - 5 ECTS Clinical Practicum II - 15 ECTS Research - 5 ECTS Clinical Approaches to Unique Populations - 5 ECTS Clinical Competency I - 10 ECTS **Year five – Master level (60 ECTS)** Research project - 15 ECTS Clinic Integration II - 5 ECTS Chiropractic in society V - 5 ECTS Chiropractic Business and Leadership - 5 ECTS Clinical Competency II - 10 ECTS Clinical Practicum III - 20 ECTS

DUT	**Bachelor - First year** Gross Anatomy IA Physiology IA Physics 101 Biological sciences Cornerstone Philosophy and History of Medicine OR Contemporary Social Issues in SA Issues of Gender and Society within Health Care OR isiZulu for Health Care Professionals I Gross Anatomy IB Histology Physiology IB Chemistry Physics 102 Chiropractic Principles and Practice I Cultural diversity OR Information and Communication Technology Literacy and Skills **Bachelor - Second year** Sociology OR Leadership and supervisory development Gross Anatomy II Physiology IIA Biochemistry Immunology, Parasitology and Communicable Diseases Diagnostic Imaging I General Pathology Clinical Anatomy Physiology IIB Chiropractic Principles and Practice II Introduction to sign language OR Values in the workplace **Bachelor - Year 3** Chiropractic Principles and Practice IIIA Diagnostics IA Systemic Pathology IA Psychopathology Clinical Pharmacology The Entrepreneurial edge Constitutional Law and Human Rights Equality and Diversity Diagnostics IB Clinical Chiropractic and Biomechanics I Diagnostic Imaging II Chiropractic Principles and Practice IIIB Systemic Pathology IB Myofascial and Adjunctive Therapies I **Bachelor - Year 4** Diagnostics IIA Chiropractic Principles and Practice IVA Research Methods and Bioethics

	Clinical Chiropractic and Biomechanics IIA Myofascial and Adjunctive Therapies II Clinical Nutrition Diagnostics IIB Public and Community Health Clinical Pharmacology Clinical Chiropractic and Biomechanics IIB Chiropractic Principles and Practice IVB Diagnostic Imaging III International perspectives and practices of health care systems OR Clinical Mentoring and Assessment **Master – Year 5** Project and Dissertation V Chiropractic Practice Management and Jurisprudence V Diagnostic Imaging V Clinical Chiropractic Practicum VA Clinical Chiropractic Practicum VB Chiropractic Case Management **Master – Year 6** Project and Dissertation V (cont.) Chiropractic Practice VB Chiropractic Practice VB
IFEC	Provides teaching of 5,000 hours, combining practical and theoretical courses Domain 1 – Basic and biological sciences Domain 2 – Descriptive and functional anatomy Domain 3 – Clinical sciences – general Domain 4 – Clinical sciences – neuromusculoskeletal system Domain 5 – Clinical sciences – patient examination Domain 6 – Chiropractic treatment and management Domain 7 – Human sciences Domain 8 – Research methodology and evidence-based practice Domain 9 – Integration of knowledge and skills in chiropractic practice _____ Humanities (13.5%), Neuro-musculoskeletal semiology* (12%), Descriptive and functional anatomy (14%), Research methodology and evidence-based practice (6.5%), Clinical Sciences (8%), Basic and biological sciences (10%), Integration of knowledge and skills (7%), Chiropractic treatments and interventions (17%) & General semiology*(12%). *Medical semiology comprises the study of symptoms, somatic signs and laboratory signs, history taking and physical examination (Physical diagnosis).

MCC	**Year 1:** Human Function I - 30 credits Human Function II - 30 credits Philosophy I - 15 credits Chiropractic Studies I - 25 credits Clinic studies I - 10 credits Research I - 10 credits **Year 2:** Neuroscience - 20 credits Biomedical Sciences - 20 credits Behavioural Science - 10 credits Philosophy II - 15 credits Chiropractic Studies II - 25 credits Clinic Studies II - 20 credits Research II - 10 credits **Year 3:** Musculoskeletal Medicine - 20 credits Clinical Neurology - 10 credits Clinical Medicine I - 20 credits Clinical Medicine II - 20 credits Philosophy III - 10 credits Chiropractic Studies III - 15 credits Clinic Studies III - 15 credits Research III - 10 credits **Year 4:** Research IV – Dissertation (Elective/Core) - 40 credits Research IV – Evidence in Practice (Elective/Core) - 40 credits Clinical Management - 20 credits Clinic I- 20 credits Clinic II - 40 credits

RCU	No units/modules/themes but rather smaller courses **Semester 1 (30):** Basic sciences (e.g. anatomy, cell biology, chemistry, biophysics), clinical skills & observation, diagnostics (introduction to imaging), chiropractic/manual medicine, public health **Semester 2 (30):** Basic sciences (e.g. anatomy, cell biology, biomolecules), clinical skills & observation, psychosocial concepts **Semester 3 (30):** Basic sciences (e.g. anatomy, physiology, histopathology, biochemistry, biophysics), clinical skills & observation, diagnostics (fundamentals of radiology), chiropractic/manual medicine (incl biomechanics) **Semester 4 (30):** Basic sciences (e.g. anatomy, physiology, histopathology, biochemistry, biophysics), clinical – skills; observation & problem solving, toxicology, chiropractic/manual medicine (incl. biomechanics) **Semester 5 (30):** Basic sciences (e.g. neuroanatomy, physiology, pharmacology, nutrition), clinical skills & observation, diagnostics (e.g. radiography, diagnostic imaging), clinical medicine (e.g. neuro-orthopedics), chiropractic/manual medicine, research methodology **Semester 6 (30):** Basic sciences (e.g. neuroanatomy, physiology, pharmacology), clinical skills & observation, diagnostics (e.g. radiography, diagnostic imaging), clinical medicine (e.g. applied dietetics, emergency medicine), chiropractic/manual medicine, biostatistics **Semester 7 (30):** Basic sciences (e.g. neuroanatomy, neurophysiology), clinical problem solving, diagnostics (e.g. diagnostic imaging, diagnosis), clinical medicine (neurology), chiropractic/manual medicine, applied clinic, research **Semester 8 (30):** Basic sciences (e.g. neuroanatomy, neurophysiology), clinical problem solving, skills & observation, diagnostics (e.g. diagnostic imaging, diagnosis), clinical medicine (neurology, neuro-orthopedics), chiropractic/manual medicine, research **Semester 9 (30):** Ethics & bioethics, research project, clinical internship, diagnostics (e.g. advanced diagnostic imaging for special populations) **Semester 10 (30):** Research research project, clinical internship

SDU	The curriculum is strongly vertically and horizontally integrated. **Bachelor program** consists of 12 modules scaffolded in 3 tracks (Biomedical, Professional & Academic) The intricate integration is exemplified through: e.g. 2nd semester, module B4: ***Biomedical***: Genetics (5 ECTS) ***Professional***: Theoretical biomechanics 2 (3 ECTS), Observation, palpation and motion palpation 2 (2 ECTS) & Communication: Professional ethics (2 ECTS) ***Academic***: Scientific Method I: Biostatistics - Epidemiology (3 ECTS) _____ **Master program** consists of 8 modules scaffolded in 3 tracks (Clinical, Professional & Academic) e.g. 3rd semester, module K3: ***Clinical***: Diagnostic imaging 1 (9 ECTS) ***Professional***: Exercise therapy & training (4 ECTS) & Musculoskeletal paediatrics and geriatrics (3 ECTS), ***Academic***: Master's thesis 1 (1 ECTS)

UJ	**Bachelor - First year** Physics of Health Sciences 1 Sociology of Health and Health Care Anatomy and Physiology 1 Biodiversity Chemistry 1 Chiropractic Principles and Practice 1 Personal and Professional Development 1 **Bachelor - Second year** Medical Microbiology Anatomy 2 Chiropractic Principles and Practice 2 Human Biochemistry and Disease 1 Personal and Professional Development 2 Physiology 2 **Bachelor - Third year** Pharmacology Radiology Clinical Diagnostics 3 Clinical Psychology Chiropractic Principles and Practice 3 Myofascial and Auxiliary Therapies 3 Pathology 3 **Bachelor - Fourth year** Clinical and Applied Biomechanics 4 Research Methodology 4 Myofascial and Auxiliary Therapies 4 Clinical Chiropractic 4 Chiropractic Principles and Practice 4 Clinical Practice 4 Radiology 4 **Master - Fifth year** Clinical and Applied Biomechanics 5 Practice Management and Jurisprudence Clinical Chiropractic 5 Chiropractic Clinical Practice 5A Chiropractic Principles and Practice 5 Myofascial and Auxiliary Therapies 5 Research Project and Dissertation 5A **Master - Sixth year** Research Project and Dissertation 5B Research Project and Dissertation 5C Chiropractic Clinical Practice 5B

WIOC	**Year 1** Clinical Physiology 1 - 20 credits Clinical Anatomy - 20 credits Clinical Imaging - 20 credits Clinical Management 1 - 20 credits Biomechanics - 20 credits Behavioural Science - 20 credits **Year 2** Clinical Physiology 2 - 20 credits Clinical Imaging and Diagnosis 1 - 20 credits Clinical Management 2 - 20 credits Clinical Diagnosis 1 - 20 credits Public Health for Chiropractors - 20 credits Neuroanatomy and Clinical Neurology - 20 credits **Year 3** Clinical Neuro-orthopaedics - 20 credits Research Methodology - 20 credits Clinical Preparation - 20 credits Clinical Diagnosis 2 - 20 credits Clinical Imaging & Diagnosis 2 - 20 credits Clinical Management 3 - 20 credits **Year 4** Research Project - 20 credits Translating Evidence into Clinical Practice - 20 credits Contemporary Clinical Practice - 20 credits Clinical Diagnosis and Management - 20 credits Chiropractic Clinic - 60 credits

UZH	**Year 1** 1S: Biomedical basis: anatomy, chemistry, physics. Mantle studies Chiropractic 1 2S: Biomedical basis: molecular cell biology I and II. Mantle studies Chiropractic 2 **Year 2** 1S: Human biology I, anatomy, biochemistry, physiology. Chiropractic studies 2S: Human biology II, anatomy, histology. Chiropractic studies **Year 3** 1S: Thematic blocks: respiratory, cardiovascular. Mantle studies Chiropractic 3 2S: Thematic blocks: movement, infection, systemic diseases, gastrology, reproduction and birth. Chiropractic studies **Year 4** 1S: Thematic blocks: psyche, nervous system, sensory organs and face, age, metabolism. Chiropractic studies 2S: Thematic blocks: blood and neoplasia, kidney, children and youth, skin, social medicine, emergencies. Chiropractic studies **Year 5** 1S: Chiropractic diagnostics and therapy I 2S: Chiropractic diagnostics and therapy II **Year 6** 1S & 2S: Chiropractic teaching clinic (medical-chiropractic) under supervisions and preparation for national examination
CCEC	
CMCC	Instructional Hours Year I: 1016 Year II: 982 Year III: 1030 Year IV: 1490 Total Program Hours: 4518 AN = Anatomy CD = Clinical diagnosis CE = Clinical education CP = Chiropractic principles and practice CT = Chiropractic therapeutics DI = Diagnostic imaging PA = Pathology & microbiology PH = Physiology & biochemistry RM = Research methods (electives) The first two years of the curriculum emphasize the foundational courses in the biological sciences (anatomy, pathology, physiology, microbiology, etc.). Beginning in Year I, and becoming the emphasis of the program in Years III and IV, are the professional courses in chiropractic studies, psychomotor skills, clinical education, and the related health professional courses (business, jurisprudence, ethics and professionalism).

UQTR	**Year 1 (48 credits):** Subjects such as anatomy, embryology & physiology; microbiology, biochemistry & histology; chiropractic science and practice; functional analysis & biomechanics; and interprofessional collaboration **Year 2 (51 credits):** Subjects such as radiology; microbiology; chiropractic science and practice; functional analysis & biomechanics; diagnosis; physiology; neurology; pathology; and laboratory medicine **Year 3 (50 credits):** Subjects such as radiology; anatomy; diagnosis; epidemiology; neurology; pathology; laboratory medicine; chiropractic science and practice; orthopedics & rheumatology; and interprofessional collaboration **Year 4 (39 credits):** Subjects such as radiology; chiropractic science and practice; psychology; nutrition; pharmacology & toxicology; gynecology, obstetrics & pediatrics; laboratory medicine; and business and practice Management **Year 5 (29 credits):** Subjects such as radiology; chiropractic science and practice; pharmacology & toxicology; medical emergency; geriatrics; psychology; and electives.
CCEA	

ACC	**Diploma- Year 1 (Level 1 - 96 credit points):** First semester: Human body systems; Life sciences; Study & research skills; Social studies of heallth Second semester: Human body systems; Life sciences; Study & research skills; Healthcare assessment **Bachelor - Year 2 (Level 2 - 120 credit points):** First semester: Anatomy; Chiropractic; immunology; Biomechanics; Professional practice; Pathology Second semester: Anatomy, Neuroscience; Pathology, Chiropractic; Psychology **Bachelor - Year 3 (Level 3 - 120 credit points):** Third semester: Anatomy; Chiropractic; Professional practice; Neuroscience; Radiology; Pathology Fourth semester: Neuroscience; Diagnosis; Chiropractic; Professional practice; Radiology/Diagnostic imaging, Nutrition; Chiropractic practice (clinic) **Bachelor - Year 4 (Level 4 - 120 credit points):** Fifth semester: Chiropractic; Chiropractic practice (clinic); Psychology; Neuro diagnosis; Diagnostic imaging; Diagnosis; Rehabilitation Sixth semester: Professional practice; Chiropractic; Chiropractic management; Chiropractic practice (clinic); Diagnostic imaging **Bachelor - Year 5 (Level 5 - 120 credit points):** Seventh semester: Diagnostic imaging; Chiropractic; Chiropractic practice (clinic); Diagnostic imaging; Chiropractic management; Professional practice Eight semester: Professional practice; Chiropractic; Chiropractic practice (clinic); Business and ethics

CQU	**Bachelor - Year 1 (48 credits):** First semester: Chiropractic; Anatomy & physiology; Chemistry; Study & research skills Second semester: Anatomy & physiology; Biochemistry; Chiropractic; Mental health literacy **Bachelor - Year 2 (48 credits):** Third semester: Chiropractic, Neurophysiology; Pathophysiology; Neuromusculoskeletal anatomy Fourth semester: Chiropractic; Microbiology; Radiology; Neuromusculoskeletal anatomy **Bachelor - Year 3 (48 credits):** Fifth semester: Clinical assessment & diagnosis; Professional practice; Systems & pathology; Radiology Sixth semester: Clinical assessment & diagnosis; Professional practice; Research literacy **Year 4 - Master year 1 (72 credits):** Term 1: Clinical neurology & diagnosis; Clinical practice; Research project Term 2: Technique; Diagnostic imaging; Clinical practice Term 3: Diagnostic imaging; Clinical practice; Social perspective of health **Year 5 - Master year 2 (72 credits):** Term 4: Advanced clinical development; Clinical practice; Research project Term 5: Advanced clinical development; clinical practice; Professional practice & business management Term 6: Advanced clinical development; Clinical practice; Advanced topics in clinical chiropractic

IMU	**Year 1 (39 credits):** *First semester (19 credits)*: Basic Medical Sciences - such as human biology, biochemistry and anatomy, Discipline Core – such as palpation and topographic anatomy, philosophy & history, and Compulsory courses – such as philosophy and current issues, work life balance *Second semester (20 credits):* Discipline Core - such as anatomy, palpation and topographic anatomy, Basic Medical Sciences - such as microbiology, physics, physiology, and Compulsory courses – such as English for health sciences, community service, **Year 2 (40 credits):** *Third semester (20 credits):* Basic Medical Sciences - such as anatomy, physiology, pathology, Discipline Core – such as rehabilitation and trigger point therapy, clinical nutrition, radiography *Fourth semester (20 credits):* Basic Medical Sciences - such as neuroanatomy, biomechanics, pathology, Discipline Core - such as auxiliary therapeutics and rehabilitation and communicable diseases and immunology, Scientific Methods and Humanities – such as critical thinking and communication skills **Year 3 (40 credits):** *Fifth semester (20 credits):* Discipline Core – such as chiropractic assessment and diagnosis, spinal manipulative therapy, diagnostic Imaging, physical examination and diagnosis *Sixth semester (20 credits):* Basic Medical Sciences - such as pharmacology, psychology neuroanatomy, biomechanics, pathology, Discipline Core - such as physical examination and diagnosis, chiropractic assessment and diagnosis, diagnostic imaging **Year 4 (32 credits):** *Seventh semester (20 credits):* Basic Medical Sciences - such as first aid and emergency conditions, Discipline Core – such as clinical chiropractic and patient management, special populations (geriatrics and pediatrics), Scientific Methods – such as research methodology and biostatistics, Humanities – such as medical ethics and professionalism *Eight semester (12 credits):* Discipline Core - such as chiropractic techniques, special populations (sports and special needs), Scientific Methods – such as research project, Clinical Training – chiropractic clinical practicum **Year 5 (22 credits):** *Ninth semester (13 credits):* Clinical Training – chiropractic clinical practicum, Methods – such as research project, Humanities – such as practice, business management and entrepreneurship *Tenth semester (9 credits):* Clinical Training – chiropractic clinical practicum

MU	**Bachelor - Year 1 (80 credit points):** First semester: Anatomy; Chiropractic sciences; Human biology; Chemistry and Biomolecular sciences Second semester: Chiropractic sciences; Anatomy; Clinical epidemiology and biostatistics; Physics for life sciences **Bachelor - Year 2 (80 credit points):** Third semester: Anatomy; Chiropractic sciences; Psychology; Biochemistry and cell biology Fourth semester: Chiropractic Sciences; Principles of Health and Disease; Human biology; llness and Healing **Bachelor - Year 3 (80 credit points):** Fifth semester: Chiropractic Sciences; Radiology; Principles of health and disease; Neurophysiology Sixth semester: Chiropractic sciences; Principles of health and disease; Neuroanatomy **Master - Year 2 (80 credit points):** Third semester: Clinical neurology; Clinical chiropractic; Diagnostic imaging; Functional rehabilitation Fourth semester: Physical examination; Clinical chiropractic; Diagnostic imaging; Pre-clinical management **Master - Year 3 (80 credit points):** Fifth semester: Clinical internship; Clinical chiropractic; Research; Diagnosis & Management Sixth semester: Clinical internship; Clinical chiropractic; Research; Diagnosis & Management

MURD	**Bachelor Chiropractic Science - Year 1 (24 credits):** First semester: Chemistry, Introduction to the human body, Introduction to chiropractic, building blocks of science Second semester: Vertebrate form and function, Research methodology and evidence-based practice, Introduction to human anatomy, Human anatomy **Bachelor Chiropractic Science - Year 2 (24 credits):** Third semester: Physiology, Immunology, genetics and microbiology, Human anatomy. Clinical biomechanics Fourth semester: Radiographic anatomy, Biochemistry, Human anatomy, Physical examination **Bachelor Chiropractic Science - Year 3 (21 credits):** Fifth semester: Research and evidence-based practice, Diagnosis, Chiropractic skills, Pathological processes of disease Sixth semester: Diagnosis, Technique* **Bachelor Clinical Chiropractic - Year 1 (27 credits):** First semester: Technique*, Clinical radiology, Differential diagnosis, Preclinical practicum, Rehabilitation and physical therapy Second semester: Radiography, Rehabilitation and physical therapy, Pharmacology, Preclinical practicum **Bachelor Clinical Chiropractic - Year 2 (24 credits):** Third semester: Mental health issues in chiropractic care, Nutrition, Clinical practicum Fourth semester: Public health, Ethics, jurisprudence and professional practice management, Clinical practicum *Integrated
NZCC	**Year 1 (Foundation) (120 credits):** First semester: Human biology; Chiropractic; Knowledge management; Life science Second semester: Biomechanics; Chiropractic; Human biology; Life Science **Year 2 (120 credits):** Third semester: Anatomy; Chiropractic; Biomechanics; Pathophysiology Fourth semester: Anatomy; Chiropractic; Neurobiology; Pathophysiology **Year 3 (120 credits):** Fifth semester: Chiropractic; Chiropractic practice; Neuroscience; Pathophysiology; Psychology; Radiology Sixth semester: Imaging; Chiropractic practice; Chiropractic; Neuromusculoskeletal integration; Professional practice **Year 4 (120 credits):** Seventh semester: Chiropractic; Chiropractic integration; Chiropractic practice; Imaging; Professional practice Eight semester: Chiropractic integration; Chiropractic practice; Chiropractic; Imaging **Year 5 (120 credits):** Ninth semester: Chiropractic integration; Chiropractic practice; Imaging; Chiropractic; Professional practice Tenth semester: Chiropractic; Chiropractic practice; Professional practice

RMIT	**Year 1 (96 credit points):** First semester: Chiropractic; Human Biosciences; Biology and Chemistry for Human Biosciences; Indigenous Health and Diversity Second semester: Chiropractic; Anatomy; Research; Professionalism and Evidence-based Health Care **Year 2 (96 credit points):** Third semester: Chiropractic; Anatomy; Physiology; Biomechanics and Functional Anatomy Fourth semester: Practical Chiropractic; Neuroscience; Physiology; Chiropractic **Year 3 (96 credit points):** Fifth semester: Practical Chiropractic; Pharmacology and Toxicology; Pathology, Medical Examination Sixth semester: Practical Chiropractic; Pathology; Clinical Microbiology, Immunology and Genetics; Medical Examination **Year 4 (96 credit points):** Seventh semester: Diagnostic Imaging; Chiropractic Clinical Practice; Differential Diagnosis and Management for Chiropractors Eigth semester: Diagnostic Imaging; Chiropractic; Differential Diagnosis and Management for Chiropractors; Chiropractic Clinical Practice **Year 5 (96 credit points):** Ninth semester: Chiropractic Clinical Practice; Clinical Presentations across the Lifespan; Law and Ethics for Health Professionals Tenth semester: Chiropractic Clinical Practice; Working with Psychological Health and Disease; Foundations in Digital (or one course from any University Elective}
CCE USA	

CU	**Trimester 1 (28 credits – 465 hours):** Anatomy 13.5 credits (225 h) Biochemistry 4.5 credits (75 h) Microbiology and Public Health 2 credits (30 h) Physiology 3 credits (45 h) Chiropractic Practice 1 credit (30 h) Principles of Chiropractic 4 credits (60 h) **Trimester 2 (28.5 credits – 465 hours):** Anatomy 11.5 credits (195 h) Biochemistry 5 credits (75 h) Pathology 3 credits (45 h) Physiology 6 credits (90 h) Chiropractic Practice 3 credits (60 h) **Trimester 3 (28.5 credits – 480 hours):** Anatomy 5.5 credits (90 h) Biochemistry 3 credits (45 h) Diagnostic Imaging 3.5 credits (60 h) Microbiology and Public Health 5.5 credits (90 h) Pathology 4 credits (60 h) Physiology 3 credits (45 h) Chiropractic Practice 4 credits (90 h) **Trimester 4 (23.5 credits – 465 hours):** Diagnostic Imaging 3.5 credits (60 h) Microbiology and Public Health 3 credits (45 h) Neuromusculoskeletal Diagnosis 4 credits (75 h) Pathology 4 credits (60 h) Physiology 4 credits (60 h) Chiropractic Practice 6.5 credits (150 h) **Trimester 5 (25 credits – 450 hours):** Clinic 1 credit (30 h) General Diagnosis 5.5 credits (105 h) Neuromusculoskeletal Diagnosis 4 credits (75 h) Pathology 4 credits (60 h) Physiotherapy 3 credits (60 h) Physiology 1 credit (30 h) Chiropractic Practice 3 credits (75 h) Principles of Chiropractic 2 credits (30 h) **Trimester 6 (27.5 credits – 510 hours):** Associated Clinical Sciences 4 credits (60 h) Clinic 1 credit (30 h) Diagnostic Imaging 3.5 credits (60 h) Elective 1 credit (30 h) General Diagnosis 6 credits (90 h) Neuromusculoskeletal Diagnosis 4 credits (60 h) Physiotherapy 3 credits (60 h) Physiology 1 credit (30 h)

	Chiropractic Practice 5 credits (120 h) **Trimester 7 (27 credits – 465 hours):** Associated Clinical Sciences 10 credits (165 h) Clinic 3 credits (60 h) Diagnostic Imaging 5 credits (90 h) Elective 1 credit (30 h) General Diagnosis 6 credits (90 h) Principles of Chiropractic 2 credits (30 h) **Trimester 8 (24.5 credits – 435 hours):** Associated Clinical Sciences 11.5 credits (180 h) Clinic 2 credits (60 h) Diagnostic Imaging 3 credits (60 h) Elective 1 credit (30 h) General Diagnosis 2 credits (30 h) Chiropractic Practice 3 credits (45 h) Principles of Chiropractic 2 credits (30 h) **Trimester 9 (12 credits – 360 hours):** Clinic 12 credits (360 h) **Trimester 10 (12 credits – 360 hours):** Clinic 12 credits (360 h)
DYU	Difficulty to retrieve data
KU	Difficulty to retrieve data

LCCW	**Quarter 1 (19.5 credits – 328 hours):** Applied Chiropractic Science 0.5 credit (10 h) Anatomy 9.5 credits (168 h) Chiropractic Philosophy and Principles 5 credits (76 h) Physiology 3 credits (44 h) Technique 1.5 credits (30 h) **Quarter 2 (20 credits – 329 hours):** Applied Chiropractic Science 0.5 credit (10 h) Anatomy 7 credits (107 h) Chiropractic Philosophy and Principles 0.5 credit (10 h) Pathology 4.5 credits (66 h) Physiology 4.5 credits (75 h) Technique 3 credits (41 h) **Quarter 3 (22.5 credits – 385 hours):** Applied Chiropractic Science 0.5 credit (10 h) Anatomy 7.5 credits (118 h) Chemistry 3.5 credits (55 h) Chiropractic Philosophy and Principles 2 credits (32 h) Diagnosis 5 credits (88 h) Technique 4 credits (82 h) **Quarter 4 (23.5 credits – 388 hours):** Applied Chiropractic Science 0.5 credit (10 h) Anatomy 4.5 credits (74 h) Chemistry 3.5 credits (55 h) Chiropractic Philosophy and Principles 2 credits (32 h) Diagnosis 3.5 credits (55 h) Physiopathology 8.5 credits (132 h) Technique 2.5 credits (52 h) **Quarter 5 (23.5 credits – 386 hours):** Applied Chiropractic Science 2.5 credit (44 h) Anatomy 3 credits (33 h) Chiropractic Philosophy and Principles 0.5 credits (10 h) Diagnosis 5.5 credits (86 h) Health Center (clinic & preceptorship) 1.5 credits (20 h) Pathology 3 credits (53 h) Physiopathology 7 credits (110 h) Technique 1.5 credits (32 h) **Quarter 6 (22 credits – 364 hours):** Applied Chiropractic Science 0.5 credit (10 h) Chemistry 2 credits (33 h) Chiropractic Philosophy and Principles 1 credit (22 h) Diagnosis 2.5 credits (44 h) Health Center (clinic & preceptorship) 2 credits (30 h) Pathology 5 credits (76 h) Physiopathology 1.5 credits (22 h) Physiology 3 credits (44 h)

	Technique 4.5 credits (85 h) **Quarter 7 (23 credits – 374 hours):** Applied Chiropractic Science 9 credits (141 h) Chiropractic Philosophy and Principles 0.5 credit (10 h) Diagnosis 5.5 credits (96 h) Health Center (clinic & preceptorship) 2.5 credits (20 h) Pathology 1.5 credits (22 h) Technique 4 4 credits (85 h) **Quarter 8 (24 credits – 377 hours):** Applied Chiropractic Science 7 credits (126 h) Chiropractic Philosophy and Principles 0.5 credit (10 h) Diagnosis 11 credits (165 h) Health Center (clinic & preceptorship) 2.5 credits (22 h) Technique 3 credits (64 h) **Quarter 9 (17 credits – 293 hours):** Applied Chiropractic Science 8 credits (129 h) Chiropractic Philosophy and Principles 2.5 credit (42 h) Diagnosis 5 credits (77 h) Health Center (clinic & preceptorship) 1.5 credits (44 h) **Quarter 10 (14 credits – 240 hours):** Applied Chiropractic Science 4.5 credits (76 h) Chiropractic Philosophy and Principles 2 credits (32 h) Diagnosis 4.5 credits (66 h) Health Center (clinic & preceptorship) 1.5 credits (44 h) Pathology 1.5 credits (22 h) **Quarter 11 (12.5 credits – 216 hours):** Applied Chiropractic Science 2 credits (33 h) Chiropractic Philosophy and Principles 2 credits (32 h) Diagnosis 2 credits (33 h) Health Center (clinic & preceptorship) 3.5 credits (74 h) Technique 3 credits (44 h) **Quarter 12 (13.5 credits – 238 hours):** Applied Chiropractic Science 1.5 credit (22 h) Anatomy 1.5 credits (22 h) Chiropractic Philosophy and Principles 6.5 credits (98 h) Health Center (clinic & preceptorship) 2.5 credits (74 h) Pathology 1.5 credits (22 h) **Quarter 13 (12 credits – 253 hours):** Chiropractic Philosophy and Principles 3 credits (44 h) Diagnosis 2 credits (33 h) Health Center (clinic & preceptorship) 7 credits (176 h) **Quarter 14 (12.5 credits – 275 hours):** Chiropractic Philosophy and Principles 6.5 credits (99 h) Health Center (clinic & preceptorship) 6 credits (176 h)

LU	**1st Quarter (25 credit hours – 317 contact hours):** Chiropractic Principles and Philosophy 5 credit hours Anatomy 9 credit hours Chemistry 6 credit hours Chiropractic Practice Management 1 credit hours Clinical Practicum Courses 0 credit hours (11 contact hours) Physiology 4 credit hours **2nd Quarter (25 credit hours – 321 contact hours):** Chiropractic Principles and Philosophy 2 credit hours (3 + 22 contact hours) Anatomy 6 credit hours Analysis 6 credit hours Chemistry 5 credit hours Chiropractic Practice Management 1 credit hours Physiology 5 credit hours **3rd Quarter (26.5 credit hours – 343 contact hours):** Chiropractic Principles and Philosophy 2 credit hours (3 + 22 contact hours) Anatomy 6 credit hours Analysis 6 credit hours Chiropractic Practice Management 1 credit hours Microbiology 5 credit hours Physiology 6 credit hours Public Health 5 credit hours Radiology 15 credit hours **4th Quarter (25.5 credit hours – 376 contact hours):** Chiropractic Principles and Philosophy 0 credit hours (3 contact hours) Anatomy 4 credit hours Chiropractic Practice Management 1 credit hours Diagnosis 6 credit hours Microbiology 3 credit hours Physiology 3 credit hours Radiology 19 credit hours Research 2 credit hours Technique 1 credit hours **5th Quarter (26.5 credit hours – 354 contact hours):** Chiropractic Principles and Philosophy 0 credit hours (3 contact hours) Anatomy 4 credit hours Chiropractic Practice Management 1 credit hours Clinical Practicum Courses 0 credit hours (11 contact hours) Diagnosis 5 credit hours Microbiology 3 credit hours Pathology 4 credit hours Physiology 4 credit hours Radiology 3.5 credit hours Technique 2 credit hours **6th Quarter (25.5 credit hours – 376 contact hours):** Chiropractic Principles and Philosophy 0 credit hours (3 contact hours)

	Anatomy 4 credit hours Analysis 2 credit hours Chiropractic Practice Management 1 credit hours Clinical Practicum Courses 0 credit hours (11 contact hours) Diagnosis 10 credit hours Microbiology 3 credit hours Pathology 4 credit hours Radiology 2.5 credit hours Technique 2 credit hours **7th Quarter (26.5 credit hours – 410 contact hours):** Chiropractic Principles and Philosophy 2 credit hours (3 + 33 contact hours) Analysis 3 credit hours Clinical Education (Academics) 4 credit hours Clinical Practicum Courses 2 credit hours Diagnosis 4 credit hours Public Health 4 credit hours Radiology 5.5 credit hours Technique 2 credit hours **8th Quarter (25.5 credit hours – 365 contact hours):** Chiropractic Principles and Philosophy 2 credit hours (3 + 33 contact hours) Chiropractic Practice Management 1 credit hours Clinical Education (Academics) 4 credit hours Clinical Practicum Courses 3 credit hours Diagnosis 4 credit hours Psychology 2 credit hours Public Health 3 credit hours Radiology 3.5 credit hours Technique 2 credit hours **9th Quarter (25.5 credit hours – 373 contact hours):** Chiropractic Principles and Philosophy 0 credit hours (3 contact hours) Chiropractic Practice Management 1 credit hours Clinical Education (Academics) 4 credit hours Clinical Practicum Courses 4 credit hours Diagnosis 2 credit hours Psychology 3 credit hours Public Health 2 credit hours Radiology 2.5 credit hours Research 2 credit hours Technique 5 credit hours **10th Quarter (25.5 credit hours – 355 contact hours):** Chiropractic Principles and Philosophy 0 credit hours (3 contact hours) Chiropractic Practice Management 2 credit hours Clinical Education (Academics) 6 credit hours Clinical Practicum Courses 3 credit hours Diagnosis 3 credit hours Psychology 3 credit hours

	Public Health 4 credit hours Radiology 4.5 credit hours Technique 3 credit hours **11th Quarter (24 credit hours – 343 contact hours):** Chiropractic Principles and Philosophy 0 credit hours (3 contact hours) Analysis 2 credit hours Chiropractic Practice Management 6 credit hours Clinical Education (Academics) 4 credit hours Clinical Practicum Courses 3 credit hours Public Health 3 credit hours Radiology 3 credit hours Technique 2 credit hours **12th Quarter (23 credit hours – 254 contact hours):** Chiropractic Principles and Philosophy 2 credit hours (3 + 22 contact hours) Chiropractic Practice Management 5 credit hours Clinical Education (Academics) 4 credit hours Clinical Practicum Courses 3 credit hours Technique 3 credit hours Elective 6 credit hours **13th Quarter (23 credit hours – 311 contact hours):** Chiropractic Principles and Philosophy 0 credit hours (3 contact hours) Chiropractic Practice Management 2 credit hours Clinical Education (Academics) 4 credit hours Clinical Practicum Courses 7 credit hours Research 1 credit hours Technique 3 credit hours Elective 6 credit hours **14th Quarter (13 credit hours – 168 contact hours):** Chiropractic Principles and Philosophy 0 credit hours (3 contact hours) Clinical Practicum Courses 7 credit hours Elective 6 credit hours

LOGU	**Tri 1 (24 credits – 435 hours):** Basic sciences (e.g. anatomy, histology, cell biology), clinical methods & reasoning, chiropractic/manual medicine, research methods (information literacy) **Tri 2 (26.5 credits – 495 hours):** Basic sciences (e.g. anatomy, biochemistry, physiology), clinical methods & reasoning, chiropractic/manual medicine, **Tri 3 (30.5 credits – 540 hours):** Basic sciences (e.g. anatomy, biochemistry, physiology, microbiology, pathology), clinical methods & reasoning, chiropractic/manual medicine, **Tri 4 (28.5 credits – 510 hours):** Basic sciences (e.g. physiology, pathology, nutrition), diagnostics (imaging), clinical methods & reasoning, chiropractic/manual medicine, research methods (information literacy) **Tri 5 (26 credits – 480 hours):** Clinical medicine (e.g. internal disorders, EENT), diagnostics (imaging, laboratory, physical), chiropractic/manual medicine, **Tri 6 (30.5 credits – 540 hours):** Clinical medicine, basic science, business (e.g. healthcare statistics, billing & doc), diagnostics (imaging, physical), chiropractic/manual medicine, **Tri 7 (22 credits + required electives) – 480 hours):** Clinical medicine (e.g. geriatrics, pediatrics, pharmacology, clinical nutrition, clinical psychology), business (e.g accounting), diagnostics (imaging), clinical placement, electives **Tri 8 (20.5 credits + required electives) – 465 hours):** Basic science (advanced biomechanics), clinical medicine (e.g. dermatology, endocrinology), business, public health, clinical placement, electives **Tri 9 (12 credits + required electives) – 435 hours):** Clinical placement, business (e.g. logistics), electives **Tri 10 (12 credits + required electives) – 435 hours):** Clinical placement, electives

NUHS	Three : Phase I:Basic Science, Phase II: Clinical Sciences & Phase III: Clinical Practice **Phase 1 - Term 1 (T1) (23 credits - 450 clock hours)**: Anatomy 11 credits Biochemistry 5 credits Business 1 credit Fundamentals health 1 credit Manual medicine 1 credit Physiology 5 credits **Phase 1 - Term 2 (T2) (24.5 credits - 450 clock hours):** Anatomy 10.5 credits Examination & management 3 credits Microbiology 2 credits Manual medicine 1 credit Pathology 3 credits Physiology 3.5 credits Radiology 1.5 credit **Phase 1 - Term 3 (T3) (26 credits - 458 clock hours):** Anatomy 6.5 credits Biochemistry 2 credits Examination & management 3 credits Microbiology 4.5 credits Fundamentals health 1 credit Manual medicine 1 credit Pathology 4 credits Physiology 4 credits **Phase 1 - Term 4 (T4) (28 credits - 465 clock hours):** Biochemistry 1 credit Public health 2 credits Examination & management 3 credits Evidence-based practice 1 credit Microbiology 5 credits Manual medicine 1 credit Nutrition & pharmacology 3 credits Pathology 6 credits Physiology 5 credits Radiology 1 credits **Phase 2 – Term 1 (T5) (28 credits - 465 clock hours):** Examination & management 14 credits Medical examination 3 credits Manual medicine 2.5 credits Nutrition & pharmacology 6 credits Radiology 2.5 credits **Phase 2 – Term 2 (T6) (28.5 credits - 525 clock hours):** Business 2 credits Examination & management 14.5 credits Functional rehabilitation 3 credits

	Nutrition & pharmacology 3 credits Manual medicine 3.5 credits Radiology 2.5 credits **Phase 2 – Term 3 (T7) (30.5 credits - 540 clock hours)):** Business 4 credits Emergency care 1.5 credits Examination & management 5 credits Evidence-based practice 1 credit Functional rehabilitation 7.5 credits Manual medicine 1 credit Nutrition & pharmacology 8 credits Radiology 2.5 credits **Phase 2 – Term 4 (T8) (25.5 credits - 593 clock hours):** Business 2 credits Examination & management 6.5 credits Evidence-based practice 0.5 credit Functional rehabilitation 2 credits Clinical internship 11 credits Manual medicine 0,5 credit Radiology 2 credits **Phase 3 – Term 1 (T9) (17 credits^* - 544 clock hours**): Clinical internship 17 credits **Phase 3 – Term 2 (T10) (17 credits** - 544 clock hours):** Clinical internship 17 credits **Electives have been incorporated the last iteration of the program syllabus During phase 3 NUHS also offers competitive opportunities for select DC students to participate in exciting hospital internship experiences. To apply for one of our hospital rotations, students must have a minimum 2.75 GPA and apply through the Dean of Clinics. Hospital rotations and clerkships may last from one to six months.

NCHS	**1st Trimester (22 credit hours – 420 contact hours):** Anatomy 13 credits (255 hours) Biochemistry 3 credits (45 hours) Health Care Administration 0.5 credit (15 hours) Philosophy 3 credits (45 hours) Physiology 1 credit (15 hours) Technique 1.5 credits (45 hours) **2nd Trimester (22 credit hours – 435 contact hours):** Anatomy 10 credits (195 hours) Biochemistry 3 credits (45 hours) Health Care Administration 0.5 credit (15 hours) Philosophy 1 credit (15 hours) Physiology 3 credits (45 hours) Radiology 3 credits (45 hours) Technique 1.5 credits (45 hours) **3rd Trimester (23.5 credit hours – 465 contact hours):** Anatomy 5 credits (105 hours) Health Care Administration 0.5 credit (15 hours) Microbiology & Public Health 4 credits (60 hours) Physiology 8 credit (135 hours) Radiology 1 credit (30 hours) Technique 5 credits (120 hours) **4th Trimester* (22 credit hours – 427.5 contact hours):** Clinical Health Sciences 1 credit (15 hours) Diagnosis 7 credits (135 hours) Health Care Administration 1 credit (22.5 hours) Microbiology & Public Health 2 credits (30 hours) Philosophy 3 credits (45 hours) Physiology 5 credits (90 hours) Technique 3 credits (90 hours) *A minimum of 6 elective credit hours must be completed after completion of 4th trimester coursework **5th Trimester (23.5 credit hours – 480 contact hours):** Diagnosis 14 credits (270 hours) Health Care Administration HCA 0.5 credit (15 hours) Philosophy 3 credits (45 hours) Technique 6 credits (150 hours) **6th Trimester (24 credit hours – 495 contact hours):** Associated Studies 4.5 credits (75 hours) Diagnosis 11.5 credits (240 hours) Health Care Administration 0.5 credit (15 hours) Philosophy 2 credits (30 hours) Technique 5.5 credits (135 hours) **7th Trimester (24 credit hours – 465 contact hours):** Associated Studies 7 credits (105 hours) Microbiology & Public Health 2 credits (30 hours)

	Clinical Health Sciences 1 credit (15 hours) Clinical Sciences 5 credits (135 hours) Diagnosis 4 credits (60 hours) Radiology 4 credits (90 hours) Philosophy 2 credits (30 hours) Technique 1 credit (30 hours) **8th Trimester (21 credit hours – 465 contact hours):** Associated Studies 3 credits (45 hours) Business and Practice Management 3 credits (45 hours) Clinical Sciences 11 credits (315 hours) Diagnosis 1 credit (15 hours) Health Care Administration 1 credit (15 hours) Radiology 2 credits (30 hours) **9th Trimester (19 credit hours – 450 contact hours):** Associated Studies 1 credit (15 hours) Business and Practice Management 4 credits (60 hours) Clinical Health Sciences 1 credit (30 hours) Clinical Sciences 11 credits (315 hours) Diagnosis 2 credits (30 hours) **10th Trimester (17 credit hours – 405 contact hours):** Business and Practice Management 4 credits (60 hours) Clinical Sciences 10 credits (300 hours) Diagnosis 3 credits (45 hours)

NWHSU	Program consists of: Foundational Studies, Clinical Skills Development and Clinical Internships **First Year - 1st Trimester (22.95 credits):** Basic Sciences Anatomy 17.25 credits Health Promotions and Associated Sciences 0.20 credit Practice & Professionalism 1 credit Chiropractic Studies 2 credits Radiology 1.5 credit Integrative care 1 credit **First Year - 2nd Trimester (27 credits):** Basic Sciences Anatomy 21.5 credits Practice & Professionalism 1.5 credit Chiropractic Studies 4 credits **First Year - 3rd Trimester (27.25 credits):** Clinical Sciences 4.5 credits Clinical Education 2 credits Basic Sciences Anatomy 11 credits Chiropractic Studies 5.25 credits Health Promotions and Associated Sciences 2 credits Radiology 2.5 credits **Second Year – 4th Trimester (25.88 credits):** Clinical Sciences 12.13 credits Chiropractic Studies 5.25 credits Basic Sciences Anatomy 6 credits Radiology 2.5 credits Second Year – 5th Trimester (22.75 credits): Health Promotions and Associated Sciences 4 credits Clinical Sciences 8 credits Practice & Professionalism 3 credit Clinical Education 1 credit Chiropractic Studies 4.25 credits Radiology 2.5 credits **Second Year – 6th Trimester (30.75 credits):** Clinical Sciences 14.25 credits Practice & Professionalism 4 credits Clinical Education 3 credits Chiropractic Studies 4 credits Radiology 5.5 credits **Third Year – 7th* Trimester (22.25 credits):** Clinical Sciences 4 credits Practice & Professionalism 2 credits Health Promotions and Associated Sciences 10.25 credits Clinical Education 3 credits Chiropractic Studies 1.5 credits Radiology 1.5 credits **Students can start requires electives (5.75*) **Third Year – 8th Trimester (27 credits):** Health Promotions and Associated Sciences 5 credits Clinical Education 10 credits Radiology 2 credits **Third Year – 9th Trimester (12 credits):** Health Promotions and Associated Sciences 2 credits

	Clinical Education 10 credits **Third Year – 10th Trimester (10 credits):** Clinical Education 10 credits

PCC	Davenport: Anatomy, Chiropractic Business and Practice Management, Clinic, Diagnosis, Library, Pathology, Physiology and Biochemistry, Philosophy, Physiotherapy Rehabilitation, Radiology, Research, Elective Program & Technique Florida campus: Structure of the Human, Care for the Human, Clinic, Foundations for Practice, Clinical Enrichment Program Electives & Function of the Human Only Davenport break down: **1st Tri (18 credits – 420 hours):** Anatomy 10 Chiropractic Business and Practice Management 1 Physiology and Biochemistry 6 Philosophy 1 **2nd Tri (19 credits – 450 hours):** Anatomy 8 Pathology 3 Physiology and Biochemistry 6 Philosophy 1 Technique 1 **3rd Tri (19 credits – 450 hours):** Anatomy 3 Pathology 8 Physiology and Biochemistry 5 Research 1 Technique 2 **4th Tri (19 credits – 450 hours):** Anatomy 3 Clinic 1 Diagnosis 4 Pathology 2 Physiology and Biochemistry 2 Physiotherapy Rehabilitation 2 Radiology 2 Technique 2 **5th Tri (20 credits – 525 hours):** Diagnosis 10 Physiotherapy Rehabilitation 2 Radiology 5 Technique 3 **6th Tri (21 credits – 555 hours):** Clinic 1 Diagnosis 8 Pathology 2 Physiotherapy Rehabilitation 2 Radiology 3 Technique 5 **7th Tri (19 credits – 495 hours):** Clinic 4

	Diagnosis 5 Physiology and Biochemistry 2 Radiology 1 Technique 7 **8th Tri (13 credits – 420 hours):** Chiropractic Business and Practice Management 3 Clinic 9 Philosophy 1 **9th Tri (13 credits – 435 hours):** Chiropractic Business and Practice Management 4 Clinic 9 **10th Tri (12 credits – 435 hours):** Chiropractic Business and Practice Management 1 Clinic 11

PU	Seven trimesters of academic coursework and three trimesters of clinical internship. Total 224.5 credits (4485 clock hours (h)). Divided as: Basic Sciences 58 credits (990 h), Chiropractic Sciences 53 credits (990 h), Clinical Sciences 61.5 credits (1155 h), Clinic Internship 46 credits (1215 h), Elective Courses 6 credits (135 h)_____ **Tri 1 (23.5 credits – 390 hours):** Basic Sciences 12 credits Chiropractic Sciences 6 credits Clinical Sciences 5.5 credits **Tri 2 (27 credits – 495 hours):** Basic Sciences 19 credits Chiropractic Sciences 6 credits Clinical Sciences 2 credits **Tri 3 (25 credits – 450 hours):** Basic Sciences 15 credits Chiropractic Sciences 7 credits Clinical Sciences 3 credits **Tri 4 (25 credits – 450 hours):** Basic Sciences 10 credits Chiropractic Sciences 4 credits Clinical Sciences 11 credits **Tri 5 (29 credits – 555 hours):** Basic Sciences 2 credits Chiropractic Sciences 12 credits Clinical Sciences 15 credits **Tri 6 (23 credits – 435 hours):** Chiropractic Sciences 14 credits Clinical Sciences 9 credits **Tri 7 (23 credits – 450 hours):** Chiropractic Sciences 10 credits Clinical Sciences 13 credits **Tri 8 (17 credits – 405 hours):** Clinical Sciences 3 credits Clinic Internship 14 credits **Tri 9 (16 credits – 420 hours):** Clinical Sciences 3 credits Clinic Internship 16 credits **Tri 10 (16 credits – 435 hours):** Clinic Internship 16 credits

SCC	**1st Quarter (24 credit hours – 275 classroom hours):** Anatomy 12 credits, 143 classroom hours Business Practices 2 credits, 22 classroom hours Pathology, Microbiology and Public Health 1 credit, 11 classroom hours Philosophy 4 credits, 44 classroom hours Research 1 credit, 11 classroom hours Chiropractic Technique 4 credits, 44 classroom hours **2nd Quarter (30 credit hours – 363 contact hours):** Anatomy 6 credits, 77 classroom hours Pathology, Microbiology and Public Health 5 credits, 55 classroom hours Physiology and Chemistry 5 credits, 55 classroom hours Philosophy 5 credits, 55 classroom hours Chiropractic Technique 9 credits, 99 classroom hours **3rd Quarter (32 credit hours – 363 contact hours):** Anatomy 12 credits, 143 classroom hours Business Practices 2 credits, 22 classroom hours Pathology, Microbiology and Public Health 2 credits, 22 classroom hours Physiology and Chemistry 9 credits, 99 classroom hours Philosophy 2 credits, 22 classroom hours Chiropractic Technique 5 credits, 55 classroom hours **4th Quarter (32.3 credit hours – 363 contact hours):** Anatomy 10.25 credits, 143 classroom hours Diagnosis 2 credits, 22 classroom hours Pathology, Microbiology and Public Health 4 credits, 44 classroom hours Physiology and Chemistry 4 credits, 44 classroom hours Radiology 4 credits, 44 classroom hours Chiropractic Technique 8 credits, 88 classroom hours **5th Quarter (32 credit hours – 352 contact hours):** Diagnosis 3 credits, 33 classroom hours Physiology and Chemistry 13 credits, 143 classroom hours Philosophy 2 credits, 22 classroom hours Radiology 8 credits, 88 classroom hours Chiropractic Technique 6 credits, 66 classroom hours **6th Quarter (35 credit hours – 385 contact hours):** Anatomy 2 credits, 22 classroom hours Diagnosis 15 credits, 165 classroom hours Pathology, Microbiology and Public Health 4 credits, 44 classroom hours Physiology and Chemistry 5 credits, 55 classroom hours Radiology 5 credits, 55 classroom hours Chiropractic Technique 4 credits, 44 classroom hours **7th Quarter (28 credit hours – 308 contact hours):** Diagnosis 18 credits, 198 classroom hours Radiology 5 credits, 55 classroom hours Research 1 credit, 11 classroom hours Chiropractic Technique 4 credits, 44 classroom hours **8th Quarter (29 credit hours – 319 contact hours):**

	Clinic 10 credits, 110 classroom hours Diagnosis 3 credits, 33 classroom hours Philosophy 3 credits, 33 classroom hours Radiology 11 credits, 121 classroom hours Chiropractic Technique 2 credits, 22 classroom hours **9th Quarter (30 credit hours – 330 contact hours):** Clinic 8 credits, 88 classroom hours Diagnosis 10 credits, 110 classroom hours Pathology, Microbiology and Public Health 3 credits, 33 classroom hours Philosophy 4 credits, 44 classroom hours Radiology 2 credits, 22 classroom hours Chiropractic Technique 3 credits, 33 classroom hours **10th Quarter (27.5 credit hours – 373 contact hours):** Clinic 5 credits, 120 classroom hours Diagnosis 16.5 credits, 187 classroom hours Radiology 5 credits, 55 classroom hours Research 1 credit, 11 classroom hours **11th Quarter (26.5 credit hours – 389 contact hours):** Business Practices 9 credits, 99 classroom hours Clinic 8 credits, 180 classroom hours Diagnosis 9.5 credits, 110 classroom hours **12th Quarter (23 credit hours – 358 contact hours):** Clinic 9 credits, 204 classroom hours Diagnosis 10 credits, 110 classroom hours Philosophy 4 credits, 44 classroom hours **13th Quarter (15 credit hours – 295 contact hours):** Clinic 14 credits, 284 classroom hours Diagnosis 11 credits, 11 classroom hours **14th Quarter (12 credit hours – 264 contact hours):** Clinic + elective 12 credits, 264 classroom hours

SCU	*A 10 terms exemple:* **Term 1 (20 credits):** Foundations in Healthcare 3 Clinical Diagnosis 1 Chiropractic Procedures 3 Chiropractic Theories 2 Cell Tissue Anatomy and Physiology 3 Functional Anatomy and Biomechanics 4 General Anatomy 4 **Term 2 (21 credits):** Basic Nutrition 4 Foundations in Healthcare 2 Clinical Diagnosis 1 Chiropractic Procedures 3 Clinical Reasoning 2 Functional Anatomy and Biomechanics 5 General Anatomy 4 **Term 3 (24 credits):** Clinical Diagnosis 4 Chiropractic Procedures 3.5 Neuroscience 5 Pathology 3 Physiology 5.5 Selective 1 Imaging 2 **Term 4 (26.5 credits):** Basic Nutrition 3 Chiropractic Procedures 3.5 Community and Public Health 3 Diagnosis 3 Immunity and Infection 5 Pathology 4 Selective 2 Imaging 3 **Term 5 (23.5 credits):** Advanced Nutrition 4 Clinical 1 Clinical Neurology 2 Chiropractic Procedures 8.5 Diagnosis 3 Selective 2 Imaging 3 **Term 6 (26.5 credits):** Pharmaceutical Sciences 2 Clinical Diagnosis 2 Clinical 1.5

	Chiropractic Procedures 5 Chiropractic Theories 3 Diagnosis 4 Principles and Practices 1 Selective 2 Imaging 6 **Term 7 (20 credits):** Clinical Diagnosis 2 Clinical 1 Chiropractic Procedures 2 Chiropractic Jurisprudence 1 Diagnosis 5 Integrative chiropractic 2 Selective 2 Principles and Practices 1 **Term 8 (20 credits):** Clinical 13 Diagnosis 1 Selective 3 Principles and Practices 3 **Term 9 (17 credits):** Clinical 12 Selective 5 **Term 10 (17 credits):** Clinical CL 12 Selective 5

TCC	**Trimester 1 (19.5 credits – 360 hours):** Anatomy 14 credits (255 hours) Chiropractic technique & principles 2.5 credits (60 hours) Biochemistry 3 credits (45 hours) **Trimester 2 (23.5 credits – 420 hours):** Anatomy 7 credits (150 hours) Chiropractic technique & principles 4.5 credits (90 hours Biochemistry credits (45 hours) Clinical practice 2 credits (30 hours) Pathology 3 credits (45 hours) Physiology 4 credits (60 hours) **Trimester 3 (22.5 credits – 375 hours):** Anatomy 4.5 credits (75 hours) Chiropractic technique & principles 4 credits (90 hours) Diagnostic imaging 2 credits (30 hours) Microbiology 5 credits (75 hours) Pathology 3 credits (45 hours) Physiology 4 credits (60 hours) **Trimester 4 (26.5 credits – 435 hours)**: Chiropractic technique & principles 7.5 credits (165 hours) Clinical practice 11.5 credits (195 hours) Diagnostic imaging 3 credits (60 hours) Pathology 3 credits (45 hours) Physiology 3 credits (45 hours) **Trimester 5 (25.5 credits – 450 hours):** Chiropractic technique & principles 7.5 credits (165 hours) Clinical practice 12 credits (180 hours) Diagnostic imaging 6 credits (90 hours) **Trimester 6 (22 credits – 420 hours):** Chiropractic technique & principles 9 credits (195 hours) Chiropractic business practice 1 credit (15 hours) Clinical practice 12 credits (210 hours) **Trimester 7 (28.5 credits – 540 hours):** Chiropractic technique & principles 3 credits (45 hours) Chiropractic business practice 1 credit (15 hours) Chiropractic clerkship 5 credits (135 hours) Clinical practice 14 credits (240 hours) Diagnostic imaging 5.5 credits (105 hours) **Trimester 8 (21.5 credits – 526 hours):** Chiropractic technique & principles 5 credits (75 hours) Chiropractic business practice 2 credits (30 hours) Chiropractic clerkship 12.5 credits (391 hours) Evidence-based practice 2 credits (30 hours) **Trimester 9 (15 credits – 465 hours):** Chiropractic clerkship 15 credits (459 hours) -17 weeks

	Trimester 10 (17 credits – 465 hours): Chiropractic clerkship 17 credits (465 hours) -15 weeks

UCDC	**Year 1 (52 credits)** Basic Sciences 38 credits Clinical Skills 3 credits Research and long life learning practices 2 credits Chiropractic Sciences 5 credits Wellbeing 2credits Ethics/Professional Behavior 1 credit Interprofessional Experiences 1 credit **Year 2 (57 credits)** Basic Sciences 40 credits Clinical Skills 3 credits Research and long life learning practices 1 credit Chiropractic Sciences 10 credits Wellbeing 1 credit Ethics/Professional Behavior 1 credit Interprofessional Experiences 1 credit **Year 3 (48 credits)** Clinical Skills 10 credits Research and long life learning practices 2 credits Chiropractic Sciences 30 credits Wellbeing 6 credits **Year 4 (52 credits)** Clinical Skills 3 credits Research and long life learning practices 1 credit Chiropractic Sciences 41 credits Wellbeing 2 credits Ethics/Professional Behavior 2 credits Business and Professional Foundations 4 credits

UB	**Year one – semester 1 (22.5 credits – 486 semester hours):** Anatomy 13 credits (288 semester hours) Principles and Practice 4 credits (72 semester hours) Biochemistry 2 credits (36 semester hours) Chiropractic Skills and Technique 3.5 credits (90 semester hours) **Year one – semester 2 (24.5 credits – 540 semester hours):** Anatomy 9 credits (216 semester hours) Diagnostic Imaging 3 credits (72 semester hours) Neuroscience 3 credits (54 semester hours) Microbiology 2 credits (36 semester hours) Principles and Practice 2 credits (36 semester hours) Chiropractic Skills and Technique 3.5 credits (90 semester hours) **Year two – semester 3 (26.5 credits – 612 semester hours):** Neuroscience 3 credits (54 semester hours) Pathology 2.5 credits (54 semester hours) Physiology 5 credits (108 semester hours) Microbiology 2 credits (36 semester hours) Diagnostic Skills 7.5 credits (189 semester hours) Diagnostic Imaging 2 credits (54 semester hours) Biochemistry 2 credits (36 semester hours) Chiropractic Skills and Technique 2.5 credits (72 semester hours) **Year two – semester 4 (26.5 credits – 594 semester hours):** Pathology 4.5 credits (90 semester hours) Microbiology 2 credits (36 semester hours) Diagnostic Skills 7.5 credits (180 semester hours) Clinical Nutrition 1 credit (18 semester hours) Principles and Practice 2 credits (36 semester hours) Chiropractic Skills and Technique 7 credits (180 semester hours) **Year three – semester 5 (26 credits – 576 semester hours):** Physiological Therapeutics 2 credits (54 semester hours) Diagnostic Imaging 3 credits (72 semester hours) Differential Diagnosis 6 credits (126 semester hours) Clinical Nutrition 2 credits (36 semester hours) Physiology (toxicology & pharmacology) 2 credits (36 semester hours) Emergency Procedures 2 credits (54 semester hours) Research 1 credit Psychology 2 credits (36 semester hours) Principles and Practice 1 credit (18 semester hours) Chiropractic Skills and Technique 5 credits (144 semester hours) **Year three – semester 6 (28 credits – 594 semester hours):** Physiological Therapeutics 3 credits (72 semester hours) Diagnostic Imaging 5 credits (126 semester hours) Differential Diagnosis 4 credits (72 semester hours) Diagnostic Skills 3 credits (54 semester hours) Business Procedures 2 credits (36 semester hours) Clinical Services 4 credits (108 semester hours)

	Microbiology (public health) 2 credits (36 semester hours) Research 1 credit Chiropractic Skills and Technique 4 credits (90 semester hours) **Year four – semester 7 (19.5 credits – 585 semester hours):** Clinical Services 12.5 credits (450 semester hours) Diagnostic Imaging 2 credits (36 semester hours) Business Procedures 1 credit (18 Research 1 credit Chiropractic Skills and Technique 3 credits (81 semester hours) **Year four – semester 8 (18 credits – 600 semester hours):** Clinical Services 16.5 credits (600 semester hours) Research 1 credit

UWS	**Quarter 1 (18.75 credits):** Basic Sciences 11 credits Chiropractic Sciences 5.5 credits Clinical Sciences 2.25 credits **Quarter 2 (21 credits):** Basic Sciences 12.5 credits Chiropractic Sciences 6 credits Clinical Sciences 2.5 credits **Quarter 3 (22.5 credits):** Basic Sciences 16 credits Chiropractic Sciences 5 credits Clinical Sciences 1.5 credits **Quarter 4 (19 credits):** Basic Sciences 10 credits Chiropractic Sciences 4.5 credits Clinical Sciences 4.5 credits **Quarter 5 (14.5 credits):** Basic Sciences 7 credits Clinical Education 6 credits Chiropractic Sciences 5.5 credits Clinical Sciences 6 credits **Quarter 6 (25.5 credits):** Clinical Education 7 credits Chiropractic Sciences 14.5 credits Clinical Sciences 4 credits **Quarter 7 (26.5 credits)**: Clinical Education 3 credits Chiropractic Sciences 8.5 credits Clinical Sciences 9 credits **Quarter 8 (24 credits):** Clinical Education 3 credits Chiropractic Sciences 8.5 credits Clinical Internship 2 credits Clinical Sciences 10.5 credits **Quarter 9 (25.75 credits):** Clinical Education 3 credits Chiropractic Sciences 2 credits Clinical Internship 3.25 credits Clinical Sciences 17.5 credits **Quarter 10 (21.75 credits):** Chiropractic Sciences 2 credits Clinical Internship 8.25 credits Clinical Sciences 11.5 credits **Quarter 11 (20.75 credits):** Chiropractic Sciences 2 credits Clinical Internship 8.25 credits

	Clinical Sciences 10.5 credits **Quarter 12 (9 credits):** Clinical Internship 9 credits --- While the program offers elective courses, enrollment in these courses is not a requirement.