

Considerations and Recommendations for the Development or Enhancement of Undergraduate and Postgraduate Degrees in Strength and Conditioning

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ABSTRACT

This paper consolidates existing literature into 10 research-informed considerations and recommendations for developing or enhancing undergraduate and postgraduate strength and conditioning (S&C) degrees in the United Kingdom. It is hoped these can inform discussions concerning the relevance, quality, and success of S&C degrees across stakeholder groups (professional associations, employers, degree representatives, and students/graduates) and support academic institutions and policymakers to further enhance S&C curricula.

INTRODUCTION

Strength and conditioning (S&C) continues to grow in popularity¹⁻³. To meet this interest, higher education (HE) institutes are increasingly offering multidisciplinary (e.g., BSc Sport Conditioning,

Rehabilitation, and Massage) and standalone (e.g., MSc Strength and Conditioning) degrees. Previous guidance on developing S&C degrees has primarily involved expert opinion^{1,2,4,5}. While recent objective investigations by Weldon et al. in the United Kingdom (UK) have focused on course recognition, endorsement, and accreditation (hereafter collectively termed accreditation(s))³, course structure and content⁶, and stakeholder perceptions⁷. To complete this series of studies, this fourth paper consolidates these previous findings and those of related research to present 10 key considerations and recommendations to guide stakeholder groups (professional associations, employers, degree representatives, and students/graduates) in discussion concerning the relevance, quality, and success of S&C degrees. Furthermore, to inform academic institutions and policymakers how they can potentially enhance undergraduate and postgraduate S&C curricula.

Consider Your Location

Geographically, there is a concentration of UK S&C degrees around cities⁶. This provides access to a larger student pool, as locality and accessibility often influence student choice of HE institute and course⁸. Strategic locations can also provide access to local sports clubs for placements and professional networks.

Recommendation: Using updated course lists of UK S&C degrees from the Universities and Colleges Admissions Service (UCAS) (<https://www.ucas.com>) and the United Kingdom Strength and Conditioning Association (UKSCA) (<https://www.uk sca.org.uk/universities>) will provide insight into local competition and geographical areas where courses may be developed (e.g., Glasgow, Scotland)⁶.

Consider Your Target Student Market When Curriculum Planning

Typically, S&C degrees attract three types of students: (a) those entering the profession, (b) those in the profession, or (c) those looking to upskill from another profession (e.g., sports therapist)^{1,2}. Accordingly, the degree structure must be carefully planned to accommodate all types of students. For example, S&C professionals can face various constraints (e.g., time, finances, family commitments), possibly making part-time

or distance-learning options more appealing². In the UK, 10 of 20 undergraduate and 23 of 29 postgraduate S&C degrees are offered part-time, with only 3 of 29 offered via distance learning⁶. However, in Scotland, undergraduate students will only have tuition fees covered by the Student Awards Agency Scotland (SAAS) if studying full-time, which may direct student choice.

Recommendation: Distinguish the type of students you wish to recruit to guide the structure of your course. Offering various delivery models (e.g., full-time, part-time, distance learning) may increase course recruitment, student satisfaction, and completion.

Consider Stakeholder Opinions

Successful S&C degrees benefit from dynamic alignment among all stakeholder groups^{7,9} (see Figure 1 for an example). This will help ensure the continued relevance of the degree programme and support positive student experiences and outcomes (e.g., employment).

Recommendation: Continually obtain stakeholder views and guidance to inform the development or enhancement of S&C degrees, which can be obtained via surveys, consultations, forums, direct communication, and peer observations. Furthermore, recognise the influence and

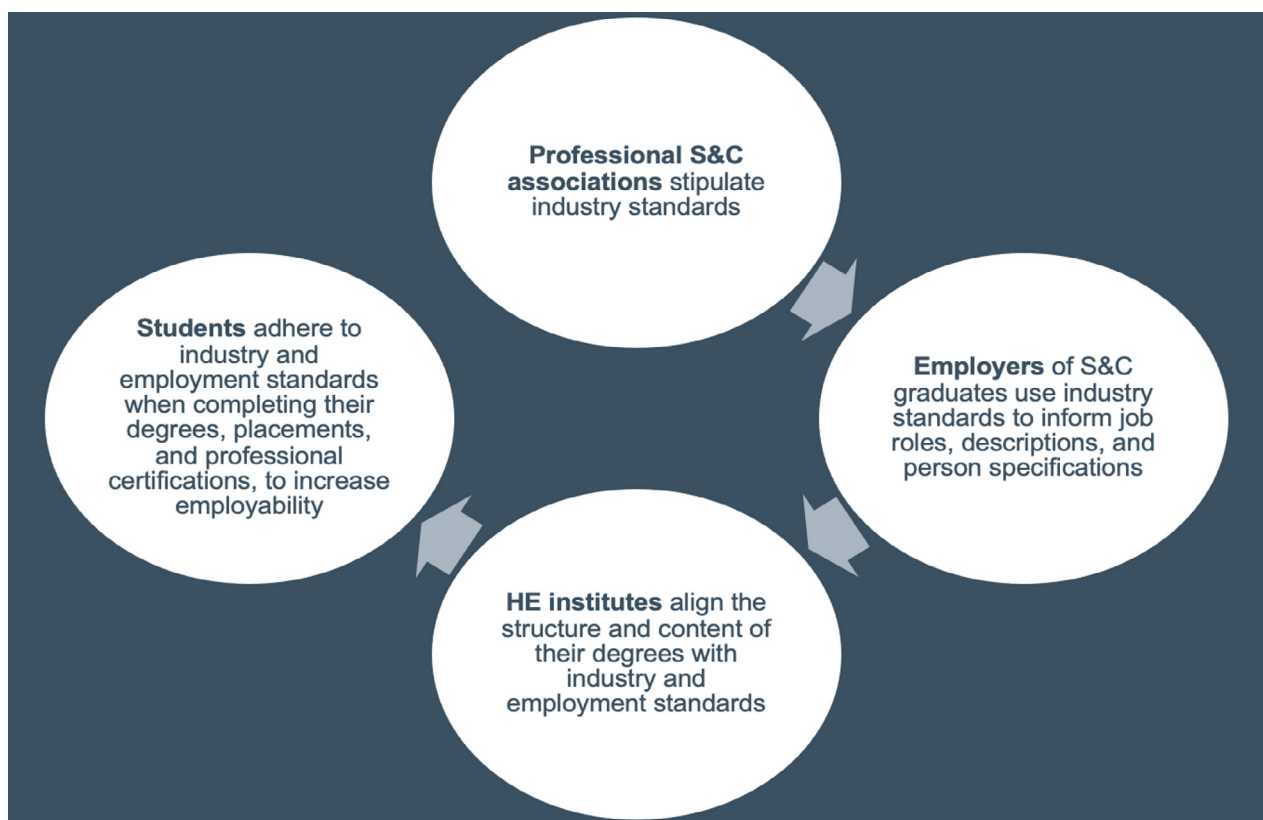


Figure 1. Dynamic alignment between strength and conditioning degree stakeholders.

interconnected relationship between different stakeholder groups.

Consider Whether You Offer Non-Academic Entry

Non-academic entry acknowledges a student's prior workplace or experiential learning¹⁰. While currently no undergraduate UK S&C degrees offer non-academic entry, 17 of 29 postgraduate S&C degrees do⁶. Approximately 89% of stakeholders perceive suitable candidates for UK S&C degrees may emerge from non-academic backgrounds, provided they possess relevant experience, knowledge, and skills, and meet appropriate equivalency criteria⁷. For example, a senior S&C coach in professional sport, with over 10 years of experience, who has obtained a professional S&C certification, looking to upskill with a Master's degree.

Recommendation: Offering non-academic entry may increase and diversify the pool of students who can access your course. However, additional support may be needed for academic and research-based skills.

Consider Whether To Offer A Foundation Year

A foundation year allows students to develop the knowledge and skills required for undergraduate degree entry requirements⁶. Currently, 12 of 19 UK undergraduate S&C degrees offer this option (excluding courses from Scotland, which offer a 4-year degree pathway with no foundation year option)⁶. This may be viewed similarly to non-academic entry, whereby potential students not meeting the minimum entry requirements may still progress in their chosen field.

Recommendation: Offering a foundation year may increase student recruitment by accommodating students not meeting the minimum entry requirements.

Consider Your Fees

Fees for UK S&C degrees are as follows^{6,7}:

- Undergraduate (UK students except Scotland) - £9,535 (capped)
- Undergraduate (international) - £12,000–16,380 (uncapped)
- Postgraduate (UK students): £6531–13,000 (uncapped)
- Postgraduate (international) - £6,531–28,000 (uncapped)

According to UK S&C degree stakeholders, whether a degree represents value for money is mainly determined by the quality of the HE institute, course, and staff⁷.

Recommendation: Although the pricing of uncapped degrees is decided by respective HE institutes, competitively pricing a degree with local competition and HE institutes of similar reputation may increase student recruitment. Also, ensure staff have the relevant expertise and professional standing and are provided with relevant continued professional development.

Consider Whether Your Course Title And Content Should Explicitly Focus On Strength And Conditioning Or Not

Until recently, UK S&C degrees had not been evaluated regarding course structure, titles, and content (compiled data is available here: forms.gle/rdMeuLcDQfjxzjZA7)⁶. These data suggest a broader cross-disciplinary focus at undergraduate level with increased specialisation in S&C at postgraduate level. For example, 11 of 20 undergraduate and 26 of 29 postgraduate degrees were explicitly titled (e.g., BSc Strength and Conditioning)⁶. Accordingly, at undergraduate level, more general topics were covered (e.g., anatomy and physiology, biomechanics/movement analysis), with postgraduate studies focusing more on S&C and professional skills⁶. A broader focus at undergraduate level may also support recruiting students uncertain of their career path⁶.

While stakeholders perceptions generally aligned with the module topics currently covered on UK S&C degrees, they suggested more balanced content with a greater emphasis on 'coaching/teaching' topics⁷, which has also been a critique of S&C degrees in broader research^{2,4}. It is important to note that the S&C of athletes or other populations is primarily a coaching function^{4,11}, with employers increasingly looking for graduates with developed soft skills (e.g., communication, interpersonal skills)⁹. For an alternative view of curriculum development, readers are directed to Massey's 'Program for Effective Teaching (PET) Model'¹⁵.

For a degree programme to become accredited under the National Strength and Conditioning Association (NSCA), Chartered Institute for the Management of Sport and Physical Activity (CIMSPA) in collaboration with the UKSCA, and the International Universities Strength and Conditioning

Association (IUSCA), certain requirements must be met, which may include specified terms in a course title (i.e., S&C) or content to be covered³.

Recommendation: If you aim to have your degree programme accredited under the NSCA, CIMSPA/UKSCA, or IUSCA, work backwards from their requirements to direct your degree title and content³. Use consolidated course information of UK S&C degrees (e.g., course titles and modules)⁶ and consider stakeholders perceptions⁷ to guide your decisions further when developing or enhancing an S&C degree.

Consider If You Will Have Compulsory Placement Modules

In the UK, 19 of 20 undergraduate and 17 of 29 postgraduate S&C degrees have compulsory placement modules⁶. Data from stakeholders perceptions of UK S&C degrees indicated compulsory placement modules are needed across undergraduate (78%) and postgraduate (63%) degrees so students gain authentic practical experience⁷. Research highlights placements are essential for S&C degree students to apply theoretical knowledge and practical skills in work-based settings while experiencing associated demands and constraints^{2,4,12,13}. Furthermore, data have shown that ~44% of placements in S&C result in employment with the host organisation¹³. However, it should be considered (particularly at the postgraduate level) that those entering education with existing experience may not require a placement².

Recommendation: Compulsory placements should be embedded into undergraduate S&C degrees. However, at the postgraduate level, placements can be discretionary for students with relevant industry experience. To ensure there are enough relevant placements, HE institutes must build and maintain strong relationships with industry partners.

Consider Whether You Will Obtain Course Accreditation From A Strength And Conditioning Body

The NSCA and IUSCA run recognition and accreditation schemes for UK S&C degrees³. Meanwhile, CIMSPA/UKSCA have developed professional standards for S&C coaches/trainers, which UK S&C degrees can align with to become endorsed. Degree accreditation requires adherence to specific frameworks and criteria outlined by these

bodies, which aim to standardise course design, structure, and development, including module topics, assessment items, and placements^{3,6}. In the UK, 17 of 20 undergraduate and 15 of 29 postgraduate degrees have gained accreditation³. According to UK S&C degree stakeholders, the primary reasons for validation are to show that quality assurance and industry standards have been met⁷. Regarding industry standards, degree course accreditation aligns with the requirements of professional certifications under each S&C association^{2,3,14}. The significance of professional certifications is widely acknowledged^{1,2,9,14,15}, with 78% of UK S&C degree stakeholders agreeing of their importance, primarily for employment (32.6%).

Recommendation: Obtain course accreditation to demonstrate your degree programme adheres to quality assurance and industry standards outlined by each respective S&C association. This will help achieve alignment with professional certification requirements, which students may need to work in the S&C industry.

Consider What Is Needed To Future-Proof Your Course

In addition to guidance from other disciplines and education research, stakeholder consultation is valuable^{1,16,17}. The perceptions of UK S&C degree stakeholders emphasise a greater need for practical experience, modules adapting to future industry needs (e.g., artificial intelligence, data analytics), and to develop broader knowledge and application of S&C to growing markets outside elite sport (e.g., general population, military, clinical settings, emergency services)⁷.

Recommendation: Beyond using general guidance and research, you should regularly consult with stakeholders to inform decisions on curriculum development and relevance. Focusing on increased practical experience, keeping current with industry trends, and acknowledging the broader application of S&C may be advantageous.

LIMITATIONS

This study includes the following limitations:

1. The research used to develop the considerations for this paper derived from the UK, Australia, New Zealand, and the United States, which have been of prominent focus in this area.

Therefore, recommendations may not apply to other countries and disciplines.

2. This paper aimed to provide a brief overview of existing literature to create considerations and recommendations. Therefore, for more comprehensive insight, readers are encouraged to engage with the cited papers.

CONCLUSION AND PRACTICAL APPLICATION

This paper consolidates existing literature into 10 research-informed considerations and recommendations for developing or enhancing undergraduate and postgraduate UK S&C degrees (Figure 2). Adopting these may lead to more relevant, high-quality, and successful S&C programmes, benefiting all stakeholders.

FUTURE RESEARCH

Each paper forming this four-paper series^{3,6,7} will be repeated periodically (e.g., every three to five years) to monitor and assess for longitudinal changes. Future research may also replicate the methods outlined in these papers for other disciplines (e.g., sports therapy) and countries (e.g., the United

States of America), providing a more comprehensive view of HE sports-based subjects.

CONFLICTS OF INTEREST

The authors declare there are no conflicts of interest.

FUNDING

No funding was received for this study to be completed.

ETHICAL APPROVAL

Ethics for this study were approved in line with University's ethics procedure.

DATES OF REFERENCE

- Submission - 21/07/2025
- Acceptance - 10/10/2025
- Publication - 22/05/2026

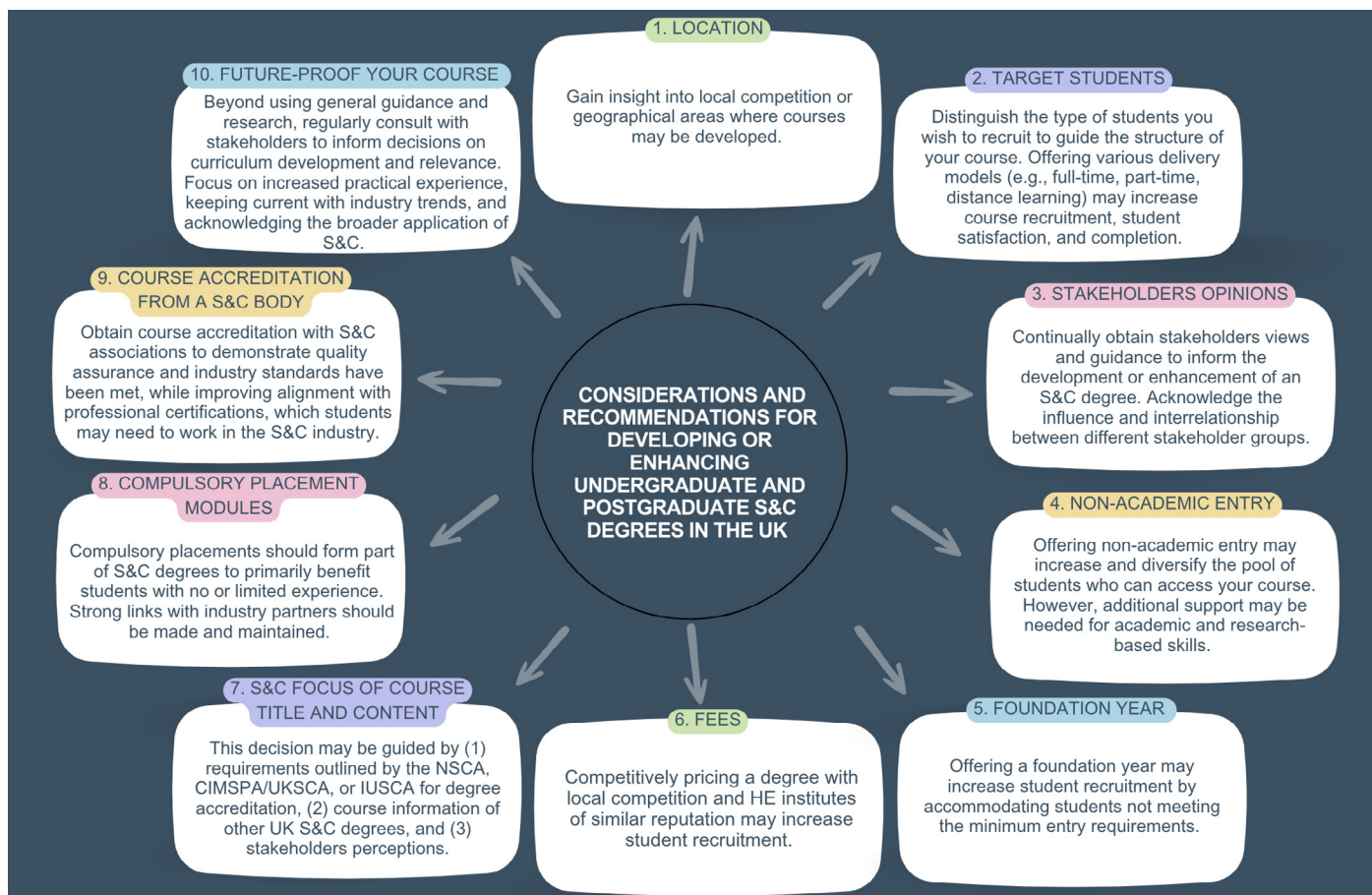


Figure 2. Infographic of 10 considerations and recommendations for developing or enhancing undergraduate and postgraduate strength and conditioning degrees in the United Kingdom

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