

# Course Outline (Higher Education)

<b>School:</b>	School of Science, Psychology and Sports
<b>Course Title:</b>	DESIGN AND INSTRUCTION OF PROGRAMS TO DEVELOP STRENGTH QUALITIES
<b>Course ID:</b>	SCOND6001
<b>Credit Points:</b>	15.00
<b>Prerequisite(s):</b>	Nil
<b>Co-requisite(s):</b>	Nil
<b>Exclusion(s):</b>	Nil
<b>ASCED:</b>	069903

## Description of the Course :

This course is designed to enable students to design safe and effective training programs for enhancing strength qualities (strength, power, reactive strength, strength-endurance and power-endurance). Students will define and distinguish the differing strength qualities while learning to systematically manipulate program variables to achieve specific training goals. The efficacy of various strength training exercises and methods will be analysed to assist students with evidence-based program design. Additionally, students will learn advanced strength training exercises and programming strategies. The course will develop the skills of analysing exercise technique, detecting and correcting faults. The mechanisms driving the development of various strength qualities will be explored to providing in in-depth understating of the biological basis underpinning training theory. Furthermore, Students will learn about the selection and implementation of tests to assess strength qualities.

**Grade Scheme:** Graded (HD, D, C, etc.)

## Work Experience:

No work experience: Student is not undertaking work experience in industry.

**Placement Component:** No

**Supplementary Assessment:** Yes

Where supplementary assessment is available a student must have failed overall in the course but gained a final mark of 45 per cent or above and submitted all major assessment tasks..

## Program Level:

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
Introductory	■	■	■	■	✓	■
Intermediate	■	■	■	■	■	■
Advanced	■	■	■	■	■	■

### Learning Outcomes:

#### Knowledge:

- K1.** Recognise what specific strength qualities are important for various sports
- K2.** Analyse the role of strength in injury prevention and performance enhancement
- K3.** Critically evaluate methods of training strength qualities based on training principles and evidence
- K4.** Analyse the physiological, biomechanical and neuromuscular mechanisms associated with development of strength qualities
- K5.** Critically evaluate programming strategies to develop strength qualities based on training principles and evidence
- K6.** Compare various tests of strength qualities

#### Skills:

- S1.** Manipulate program variables to target specific training goals for a variety of athletic populations
- S2.** Develop a plan for an effective weight training facility
- S3.** Critically review various periodisation models on the basis of evidence
- S4.** Critically review various methods for quantifying strength qualities on the basis of validity, reliability and ecological constraints.

#### Application of knowledge and skills:

- A1.** Design a comprehensive training program for specific training goals
- A2.** Analyse training exercises to determine faults
- A3.** Evaluate the performance of exercises to implement corrective strategies for safe and effective training
- A4.** Assemble test protocols for monitoring training effects that consider the athletic population and training environment
- A5.** Apply principles of periodisation to develop an effective program to enhance strength qualities
- A6.** Apply evidence to develop effective strength training programs
- A7.** Apply principles of instruction to coach safe and effective lifting techniques

#### Course Content:

- Defining strength qualities (maximum strength, power, reactive strength, strength-endurance and power-endurance) and how they relate to various sports
- The mechanisms underpinning the development of various strength qualities
- Safety consideration in the weight room
- The role of core/trunk strength for performance and injury prevention
- General, special and specific methods of training strength qualities, such as hypertrophy training, Olympic lifting, plyometrics
- The role of post-activation potentiation for developing power
- Manipulation of program variables to target specific training goals

- Application of periodisation to develop a strength training program
- Evidence and principles of periodisation for developing programming strategies for enhancing strength qualities
- Exercise analysis to identify faults and strategies for correction
- Design of a weight training facility
- Laboratory and field tests of strength qualities
- Developing an athlete profile based on assessment of strength qualities
- Tools for monitoring strength training

**Values:**

- V1.** Appreciation of the role of evidence for justifying training programs
- V2.** Appreciation of the role of weight room exercise selection and field-based training methods
- V3.** Appreciate the importance of various strength qualities to sports performance

**Graduate Attributes**

The Federation University FedUni graduate attributes (GA) are entrenched in the Higher Education Graduate Attributes Policy (LT1228). FedUni graduates develop these graduate attributes through their engagement in explicit learning and teaching and assessment tasks that are embedded in all FedUni programs. Graduate attribute attainment typically follows an incremental development process mapped through program progression. **One or more graduate attributes must be evident in the specified learning outcomes and assessment for each FedUni course, and all attributes must be directly assessed in each program**

Graduate attribute and descriptor		Development and acquisition of GAs in the course			
		Learning Outcomes (KSA)	Code A. Direct B. Indirect N/A Not addressed	Assessment task (AT#)	Code A. Certain B. Likely C. Possible N/A Not likely
GA 1 Thinkers	Our graduates are curious, reflective and critical. Able to analyse the world in a way that generates valued insights, they are change makers seeking and creating new solutions.	K1,K2,K3,K4,S2	A	AT1, AT4	A
GA 2 Innovators	Our graduates have ideas and are able to realise their dreams. They think and act creatively to achieve and inspire positive change.	S1,A1,A4,A5	A	AT2	B
GA 3 Citizens	Our graduates engage in socially and culturally appropriate ways to advance individual, community and global well-being. They are socially and environmentally aware, acting ethically, equitably and compassionately.	K6	B	AT1, AT3	C

Graduate attribute and descriptor		Development and acquisition of GAs in the course			
		Learning Outcomes (KSA)	Code A. Direct B. Indirect N/A Not addressed	Assessment task (AT#)	Code A. Certain B. Likely C. Possible N/A Not likely
GA 4 Communicators	Our graduates create, exchange, impart and convey information, ideas, and concepts effectively. They are respectful, inclusive and empathetic towards their audience, and express thoughts, feelings and information in ways that help others to understand.	A2,A3,A7	A	AT1, AT3	A
GA 5 Leaders	Our graduates display and promote positive behaviours, and aspire to make a difference. They act with integrity, are receptive to alternatives and foster sustainable and resilient practices.	K3, K5, S3, S4, A6	B	AT1, AT3	C

**Learning Task and Assessment:**

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K4, S4, S2, S3, S4, A2, A3, A4, A7	Students will engage and participate in practical sessions, group work and discussions addressing their comprehension and competency of the content.	Class participation	S/U
K1, K2, K3, K4, K5, S1, A5, A6, S3, S4, A1	This task will require students to create a detailed program to develop strength qualities based on a given scenario.	Assignment case study	30-40%
A7, A2, A3	Students will be required to analyse the technique of resistance training exercises	Simulated professional task	30-40
K1, K2, K4, S1, A5, S2, S4	Exam	Written exam short answer and multiple choice	25-35%

**Adopted Reference Style:**

Other (Journal of Strength and Conditioning Research)