

Master of Science Program in International Sports Science and Smart Health Technology Department of Exercise and Health Science, NTUNHS

Course description

Category	Details
Graduation Requirements	A minimum of 30 credits , including required courses and elective courses.
Required	- Research Methodology (2 credits): Training in sci <mark>entific research me</mark> thods, problem-solving, data analysis, and research report writing.
	- Data Management & Statistical Analysis (3 credits): Application of statistical methods and software in exercise and health sciences.
Courses	- Individual Study in Smart Exercise Health Technology (2 credits): Exploration of advanced exercise and
(14 credits)	health science technologies and practical applications.
	- Master's Thesis (6 credits): Guidance in academic writing, research methods, and publication
	preparation.
	- Individua <mark>l Study (1 credit):</mark> In-depth research on specific interdisciplinary topics and methods.
Category	Details
Elective Courses (16 credits)	- Individua <mark>l Study in Exercise Psychology (2 credits):</mark> Application of psycholo <mark>g</mark> ical theories to fitness and
	athletic per <mark>formance, including motivation and stress management.</mark>
	- Individual Study in Applied Exercise Physiology (2 credits): Understanding physiological adaptations to exercise and advanced training methods.
	- Individual St<mark>udy in Skeletal Muscle and Exercise (2 credits):</mark> Study of m<mark>u</mark>scle physiology and its
	response to exer <mark>cise under different conditions.</mark>
	- Individual Study in Exercise Respiratory and Circulation (2 credits): Examination of cardiovascular and
	respiratory systems during physical activity.
	- Fitness Exercise Training Program Design (2 credits): Development of health promotion plans tailored to
	various populations using evidence-based methods.



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- **Special Topics in Functional Training (2 credits):** Comprehensive training in functional movement, including Olympic weightlifting and performance optimization.

- Individual Study in Special Populations and Adapted Physical Education (2 credits): Designing exercise programs for individuals with specific health conditions or disabilities.

- **Special Topics in Smart Enablement and Sports Technology (2 credits):** Use of smart technologies to create personalized exercise plans for populations with mobility challenges.

- Individual Study in Multimedia Exercise and Sports Training Technology (2 credits): Application of multimedia design in exercise health technology.

- Individual Study in Exercise Equipment and Ergonomic Design Development (2 credits): Focus on usercentered exercise equipment design and innovation.

- Signal Capture and Data Processing Analysis (2 credits): Data collection and analysis techniques for sports medicine research.

- Individual Study in Assistive Technology and Rehabilitation in Sports Medicine (2 credits): Exploration of assistive technologies to support athletic performance and rehabilitation.

- Software Development for Mobile Device Application (2 credits): Creation of mobile health apps for exercise and health management.

