



Faculty of Sport and Health Sciences



31 in QS World University Rankings by Subject
22 in Shanghai Ranking



Welcome

General introduction of the Faculty of sport and health Sciences

Sarianna Sipilä, Dean

Innovations and future prospects in physical education

Associate professors Kasper Salin and Timo Jaakkola

What biobanks can offer to sport sciences?

Associate professor Elina Sillanpää

National monitoring of physical activity among children, adolescents and young adults

Professor Sami Kokko

Discussion



Finnish teacher training began at the
University of Jyväskylä in 1863

Our vision is to be a global leader in the study of learning, wellbeing and basic natural phenomena. The University of Jyväskylä is a strong, internationally attractive research university with societal impact.

Faculties:

Humanities and Social Sciences

Information Technology

School of Business and Economics

Education and Psychology

Sport and Health Sciences

Mathematics and Science



Faculty of Sport and Health Sciences

1963

PHYSICAL EDUCATION

1968

FACULTY OF SPORT AND HEALTH SCIENCES

186

TEACHERS and
RESEARCHERS

26+4

PROF/ASSOCIATE PROF

42

OTHER

228

STAFF
IN TOTAL

1257

UNDERGRADUATE
STUDENTS

894

SPORT SCIENCES

363

HEALTH SCIENCES

1422

STUDENTS
IN TOTAL

530

PUBLICATIONS

349

PEER-REVIEWED

128

FOR PROFESSIONALS

~90

PROJECTS

6 M€ (33%)

EXTERNAL FUNDING

165

DOCTORAL STUDENTS



FROM BASIC TO POLICY-ORIENTED RESEARCH

STUDY PROGRAMMES ACADEMIC DISCIPLINES

BIOLOGY OF PHYSICAL ACTIVITY

Biomechanics
Exercise Physiology
Science of Sports
Coaching
Sports technology
(Vuokatti)

SPORTS PEDAGOGY AND SOCIAL SCIENCES OF SPORTS

Physical Education
Adapted Physical Education
Sport and Exercise Psychology
Social Sciences of Sports

HEALTH SCIENCES

Gerontology and Public
Health
Health Education
Physiotherapy
Sports and Exercise
Medicine

INTERNATIONAL MASTER'S DEGREE PROGRAMS

BIOLOGY OF PHYSICAL ACTIVITY

PSYCHOLOGY OF PHYSICAL ACTIVITY, HEALTH AND WELLBEING

RESPONSIBLE MANAGEMENT AND BUSINESS OF SPORT

Faculty of Sport and Health Sciences and
Jyväskylä University School of Business and Economics



Research infrastructure

MOLECULAR/ CELLULAR LEVEL

Omics
Genotyping and
gene
polymorphisms
Gene level
expression
Protein level
expression
Protein localisation
Protein function
Single fibre
contractility
Muscle fiber size
and composition

TISSUE AND ORGAN LEVEL

General health
assess.
Total body
composition
Muscle mass and
composition
Tendon structure
Brain structure

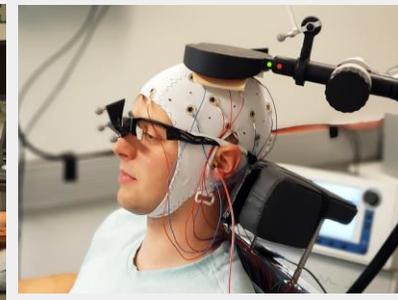
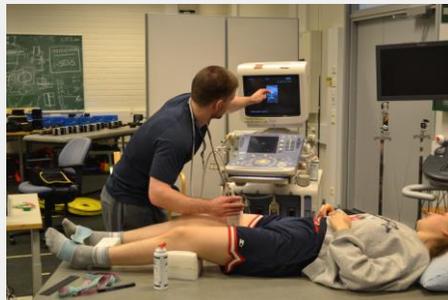
FUNCTIONAL LEVEL

Muscle
performance
Functional
capacity
and limitations
Lung function
Cardiovascular
functions
Sensory
functions
Brain function
Psychological
functioning

END- POINTS

Health
Falls
Injuries and
fractures
Functional capacity
Life-Space Mobility
Disability
Quality of life
Hospital/long-term
care
Premature death

Head of the lab
Maarit Lehti





STRATEGIC PARTNERS

WELLBEING SERVICES COUNTY OF CENTRAL FINLAND 2005-

- Associate Professor (tenure track) of Clinical Physiotherapy
- Associate Professor (tenure track) Gerontology
- Associate Professor (tenure track) Health Promotion
- Chief physician in Exercise Medicine Clinic

NATIONAL DEFENCE UNIVERSITY, 2006-

- Professor of Soldiers' Physical Performance

SOTKAMO MUNICIPALITY, VUOKATTI, 2003-

- Professor of Sports Technology

FOOTBALL ASSOCIATION OF FINLAND (FAF), 2020-

- Professor in Practice

UNIVERSITY OF TAMPERE, 2012-

- The Gerontology Research Center, GEREC





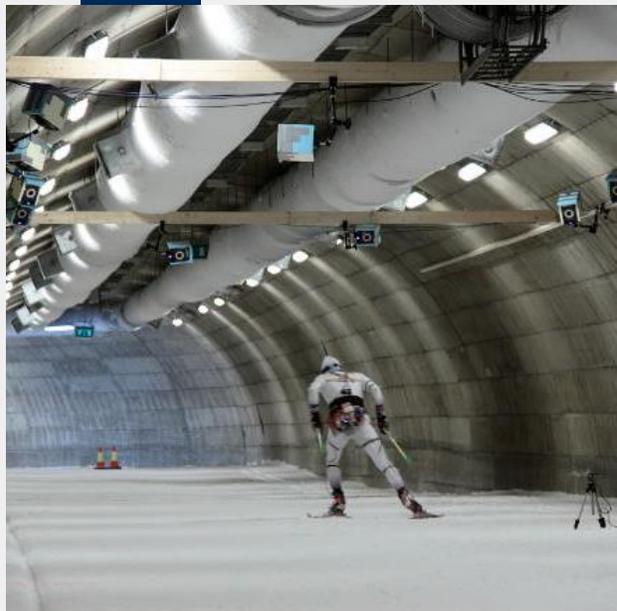
JYU-Vuokatti

- **Sports Technology Unit of the Faculty,**
Head of the Unit professor Vesa Linnamo
- Sports technology master school 2004 –
- Doctoral school 2005 –
- Athlete's dual career (JYU & KAMK) 2020 -
- Staff: 21 employers
- Snowpolis, Vuokatti (350km north-east from Jyväskylä)





Research environments for Nordic Skiing



Ski tunnel



Ski testing



Skiing



Biathlon shooting





Exercise physiology & Biomechanics





International collaboration

Visiting professors:

Professor David Lubans, The University of Newcastle, Australia

Professor Francisco Ortega, University of Granada, Spain

Professor Martin Hagger, University of California, Merced, USA

Scientific Advisory Board:

Professor Mary O'Sullivan, University of Limerick, UK

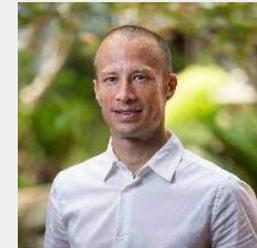
Professor Lars Tore Ronglan, Norwegian School of Sport Sciences, Norway

Professor Ulf Ekelund, Norwegian School of Sport Sciences, Norway

Physical education, Sport pedagogy



Sports psychology



Physical education,
Sport pedagogy



Sports sociology



Sports medicine,
Physical activity
Epidemiology,
Health

