SPORT SCIENCE
AT THE RUHR-UNIVERSITY BOCHUM

FACULTY – PROGRAMS OF STUDY – RESEARCH
PUBLISHING INFORMATION

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TYPESETTING AND LAYOUT
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PROFILE

The Faculty of Sport Science at Ruhr-University Bochum (RUB) is located in the heart of the Ruhr Valley region, close to the green corridor of the Ruhr river with its Lake Kemnade. The Faculty is a member of the “Metropolis Ruhr” University Alliance, and through extensive regional road and public transportation networks, well connected to both the surrounding region with the two partner universities of Duisburg-Essen and Dortmund, and to the city of Bochum. The Faculty of Sport Science, one of the twenty faculties that make up Ruhr-University, is one of the largest university sport science institutions in Germany. More than 1000 students study sport science at RUB and enrol in a wide range of bachelor’s and master’s programs.

Approximately 800 students study towards either a single-subject Bachelor, or a Bachelor of Science (B. Sc.) degree; or towards a dual-subject Bachelor or Bachelor of Arts (B. A.) degree which can be combined with an additional minor offered by other faculties on campus. Approximately 200 students are currently enrolled in a dual-subject Master or Master of Education (M. Ed.) program and intend to qualify for teaching careers at secondary and comprehensive schools.

Close to 100 students are enrolled in the single-subject Master of Science (M. Sc.) program, specializing either in “Diagnostics and Intervention” or “Sports Consulting”. At RUB, all major humanities, social and natural sport science disciplines are taught by faculty. Sports-specific education is offered by nationally recognized experts in all established and current sports and exercise fields.

Our course offerings provide career-focused close links between theory and practical application. Our recurrently high external grant application success rate is one indication of the excellent conditions for research and teaching offered by the Faculty. The teaching and research facilities offer consistently high standards of quality. The recently completed new Faculty building is specifically tailored to the needs and requirements of modern education, providing innovative research labs, teaching facilities and libraries “under one roof”. It is an ideal teaching and learning environment, conducive to close interaction between students and faculty. Come and visit, you will be most welcome!
Bochum was granted a city charter in 1321, but it wasn’t until the big booms in the coal mining and steel industries of the 19th and 20th centuries that the city achieved a significance extending beyond the region.

Bochum, the city „where the heart is still in the right place“ – that is how popular singer Herbert Grönemeyer famously characterized his home town — is located in the heart of the Ruhr Valley region, the largest conurbation in Europe. Five million people call the Ruhr Valley home, including the approximately 365000 inhabitants of Bochum (as of November 2013).

The economy of the city has changed considerably during the fifty years of Ruhr-University’s existence, the first university established after World War II. Coal mining ceased more than thirty-five years ago, and the steel industry has diminished in significance. Bochum’s economy during the subsequent decades was shaped by companies such as BP, Opel, and Thyssen-Krupp.

The service industries have recently gained prominence, but the universities remain city’s biggest employers: Ruhr-University, two engineering and technical colleges, and the Health Sciences University. They employ several thousand people in research, teaching and administration. The universities and their associated technology centres shape the city’s public profile.

The population living and working in the city and its region benefit from the many cultural attractions Bochum and the Ruhr Valley have to offer. They can attend concerts, musicals, and festivals, or visit museums. Well-established cultural traditions with their renowned museums and theatres – among them the German Mining Museum Bochum, the Ruhr Triennial and the Bochum Playhouse – as well as the indie scene, leave vivid impressions. Not least among these high quality recreational and leisure time options, ranks the wide range of sports available. And those who want to end a culture-filled day with an exploration of Bochum’s night life, usually have the same destination: the ‘Bermuda Triangle’. With its individual cafés and cozy pubs, unusual dance clubs, elegant lounges and international restaurants, this pleasant street triangle attracts visitors from across the cities of the Ruhr Valley. And once a year, the Bermuda Triangle rocks out during “Bochum Total”, one of Europe’s biggest music festivals.

THE CITY OF BOCHUM

“WHERE THE HEART IS STILL IN THE RIGHT PLACE”
A CAMPUS UNIVERSITY
Ruhr-University Bochum is one of Germany’s leading research universities. As an innovation-oriented campus university, it uniquely combines in one location the full range of the major areas of science. Dynamic cross-discipline interaction offers both researchers and students exceptional opportunities for interdisciplinary collaboration.

FACTS & FIGURES
Located at the centre of the dynamic, hospitable metropolitan Ruhr Valley region in the heart of Europe, Ruhr-University with its 20 faculties is home to more than 5000 Employees and approximately 41500 students from 130 countries. All the major scientific disciplines are offered at a single integrated campus location.

Ruhr-University was awarded a “Family-friendly University” certificate in 2006. Gender equity is a key criterion for the university’s development strategies.

EXCELLENT & INTERNATIONAL
Ruhr-University is on its way to becoming one of Europe’s leading universities of the 21st century. Almost all study programs are offered at the bachelor and master’s levels. The University’s Excellence Programs have acquired an international reputation. The Research School is an international college for the structured development of research in the life sciences, the natural and engineering sciences, as well as the humanities and the social sciences.

Research Departments which sustain intra-and inter-departmental, as well as national and international research collaboration networks, round out the university’s profile.

MISSION & GOALS
- People-centred
- Cosmopolitan
- Achievement-focused

People-centred and cosmopolitan’ means, respect for other cultures and the willingness to offer guests a home. ‘People-centred, cosmopolitan and achievement-focused’, describes the creative energies that emerge when people collaborate in facing the new with determination and ambition.
SPORT SCIENCE AT RUHR-UNIVERSITY BOCHUM

HISTORY

Ruhr-University was the first university established in the post-war Federal Republic of Germany. Its particular mission was to contribute to the advancement of university education among the working population of the Ruhr Valley region. Classes started in the winter semester of 1965/66. Sport science education and research is now widespread and offered at over sixty academic institutions in Germany. Sport science at Ruhr-University is one of only very few such institutions in Germany to have been awarded full faculty status as an independent academic and administrative unit with the right to award doctoral and post-doctoral degrees.

The Institute of Physical Education was established in 1966 as a unit attached to the University’s central administration; it focused on the education and training of physical education teachers. The founding director, Prof. Dr. H. Ueberhorst, attracted dedicated colleagues who established the initial research and teaching structures. The 1972 Munich Olympic Games and the subsequent development of broad mass and recreational sports structures, served to strengthen the importance of sports in general, as well as at the university level.

The physical education teaching degree program was complemented with a diploma degree in physical education in 1986, and in sport sciences in 2001. The degree qualifications target professional and vocational areas such as Sports Management; Prevention and Rehabilitation; and Leisure, Health and Training.

Designated a federal “Reform University”, RUB began to institute teacher-focused dual-subject (major/minor) B. A. and M. Ed. degree programs as early as 2001-02. A B. Sc. program replaced the diploma degree program in 2005-06; the M. Sc. (Sport science) arrived in 2008-09. The development of today’s Faculty of Sport Science is the outcome of a lengthy process that required dedicated involvement by faculty and students, and a university administration that remained open to sports – in opposition to prevailing public and academic opinions that dismissed sports-scientific research as being in its infancy.

Beyond the Faculty’s Founding Director, sport historian Prof. Dr. Horst Ueberhorst, mention should be made of the Executive Director and sports medicine specialist Prof. Dr. Horst de Marées, as well as long-time Dean and movement scientist Prof. Dr. August Neumaier for the major roles they played in the institutional and infrastructural development of sport science at Ruhr-University.

FROM THE THEORY OF PHYSICAL EXERCISE TO SPORT SCIENCE

- 1966 Institute of Physical Education
- 1974 Institute of Sport Science
- 1982 Department of Sport Science
- 1985 Faculty of Sport Science
GUIDING PRINCIPLE

Work in eight areas of teaching and research in the Faculty of Sport Science is informed by the Faculty’s guiding principle: ‘To identify and research sport-scientifically relevant themes; to communicate results in professionally and vocationally relevant ways; to facilitate teaching and learning that is relevant for professional practice and informed by current research; to model professional interaction oriented towards applied competencies.

ORGANIZATIONAL STRUCTURE

Sport science at Ruhr-University is broadly structured and emphasizes a strong interdisciplinary focus, offering a good balance of the arts and social sciences, as well as the medical and natural sciences. Our sport-scientific engagement is fuelled by a fascination shared by students and professors alike, with sports, movement and training, in a variety of movement spaces; our approach seeks to make complementary connections between theory and practice.

Our research identifies practical issues from a variety of practical areas in sports, and examines it at several levels of explanation within the sub-disciplines, beginning with basic research and moving up to practical application in different sports contexts.

Our teaching aims to develop sport-scientific, methodological and didactic competencies on the basis of active and self-directed movement experiences, to reflect on and understand these experiences, by placing them in the context of sport-scientific academic knowledge. This approach creates close connections between instructors and students, between sports practice and theory, and between all areas of teaching and research, facilitating efficient knowledge transfer to students, and also to practitioners in physical education, in performance, recreational and health-oriented sports.

AREAS OF TEACHING AND RESEARCH

FACULTY OF SPORT SCIENCE: ORGANIZATIONAL STRUCTURE

HUMANITIES AND SOCIAL SCIENCES
- Sports History
- Sports Management/Sport Sociology
- Sports Pedagogy/Sport Didactics
- Sports Psychology

NATURAL SCIENCES
- Movement Science/Biomechanics
- Sports Medicine/Sports Nutrition
- Training & Exercise Science

- Sport Didactics & Exercise
TEACHING AND RESEARCH

INFRASTRUCTURE

The Faculty of Sport Science provides superior infrastructural conditions for constructive teaching and learning in close communication between instructors and students. The new Faculty building (2012) houses all teaching and research divisions under one roof. The Faculty library is a core element of the facility. It offers a reading room with 65 study spaces and eight online workstations in a modern, bright and comfortable environment. With a reference collection of approximately 30000 books and digital media, fifty-six current periodicals, and a number of sport-scientific databases, the library offers optimal conditions for studying and research.

Five seminar rooms well-equipped with standardized high-end audiovisual equipment, several PC workstations and study rooms, full Wi-Fi access throughout the building, as well as several friendly and comfortable decorated lounges and seating areas, provide a pleasant and functional learning environment. The Faculty’s cafeteria, the “Athletes’ Lounge”, offers lunches, snacks and drinks of all kinds at reasonable prices, while its south-facing deck promises relaxation and pleasant conversation.

RESEARCH-BASED LEARNING

The Faculty of Sport Science applies the principle of learning through research as a fundamental instructional concept.

Bachelor students learn to research by developing and independently researching questions which they present to their fellow students and the public in the context of various research projects. The Master’s program facilitates a deepening of individual research profiles. Participation in interdisciplinary teams and research groups provides practical preparation for future career fields.

Examples for the Faculty’s implementation of its instructional guiding principles are provided by the scientific evaluation of school-based projects through our students; by performance diagnostics during the annual “Uni-Run Bochum”; and by scientific experimental research during student altitude excursions on Kilimanjaro, or the Monte Rosa massif.

EARLY CAREER RESEARCHER SUPPORT

Bachelor and Master’s students receive support to present their research findings at conferences and meetings at an early stage. Attendance at the annual Congress of the European College of Sport Science (ECSS) is an integral part of early researcher development.

The Faculty’s numerous doctoral students are enrolled in the parent RUB Research School, and follow the structured doctoral programs offered there. Regular doctoral seminars and colloquia complete the faculty’s offering.
RESEARCH FACILITIES

ERGOMETRY LABS
All major forms of ergometry (cycle, treadmill, and rowing or arm crank ergometry) can be accommodated using modern equipment with current instrumentation. An extra wide treadmill accommodates cycling, wheelchair, roller ski and skating research in addition to running tests. Breath analysis (spirometry with measurements of gas exchange, movement economy and energy consumption) and cardio-pulmonary and metabolic analysis (e.g. blood lactate and acid-base status) can be used with all forms of ergometry.

MEDICAL LABS
For sports-medical health examinations the Faculty is equipped with advanced echo- and electrocardiography, lung function and hematological and clinical chemical diagnostics. Orthopedic examination rooms are available in addition to a semi-sterile room where, for example, muscle biopsies can be performed.

HYPOXIA LABS
Continuously variable adjustment of oxygen concentration is available in several laboratories. Through reduction of available oxygen supply (normobaric hypoxia), and without changing the air pressure, any desired form of load or training intervention can be implemented at simulated altitudes of up to approximately 6500 m.

VISUAL PERCEPTION LAB
Visual performance diagnostics implement standard test procedures (autorefraction, visual acuity, stereo vision tests, perimetry, colour vision tests, etc.); additionally, test procedures adapted to sport-specific (stringent) requirements are available (e.g., tests for quantifying oculomotor and dynamic visual acuity, for the ability to anticipate, for depth and spatial perception).

A multi and factorial visual performance profile is created for each athlete in order to uncover potential performance reserves or deficits. Furthermore, other sensory functions such as hearing or balance ability can also be diagnosed.

STRENGTH DIAGNOSTICS LAB
Single or multi-joint, isokinetic, isometric and dynamic strength diagnostics as well as training interventions in the area of performance and health sports (prevention and rehabilitation) can be conducted in a large-size lab equipped with extensive technical equipment. Training equipment is available for all major muscle groups and all functional movements. Training machines equipped with uniform load sensors, are interlinked and can be centrally controlled and monitored using custom-developed software.
MOVE LAB
The large-size, spacious lab extends over two floors, including the bird’s eye perspective and provides optimal conditions for scientific training and exercise science as well as biomechanics and human movement science studies. Acoustic sound envelopes and visual darkening are accomplished at the press of a button. An absorption wall serves to reduce the impact of throws, shots and strokes of all kinds; a retractable net stops disc, javelins and golf balls. Various high-speed camera systems and radar, laser and light cell systems, as well as 12-channel EMG telemetry and wired systems are available for functional analysis. A tartan track with embedded subsurface 3-D Kistler force plates allow the assessment of jumping performance as well as running and gait analysis. Furthermore, neuromuscular function can be analysed by means of a high-tech multiple joint dynamometer in combination with EMG and electrical nerve and muscle stimulation equipment. Innovative training and diagnostic equipment, such as a non-motorized treadmill and eccentric flywheel training devices complete the equipment. Half of the floor area is lined with Rebound Ace, a floor covering frequently used in international tennis tournaments. The Move Lab is licensed as the “Official Centre for Diagnostic and Intervention of the German Tennis Federation (DTB)”. belly in an individual contraction caused by an electrical pulse, to facilitate conclusions about the regeneration status and the muscle fibre profile.

FIELD RESEARCH
For sports-specific field research all relevant measurement technologies are available and can be transported to any location (e.g. clubs, associations, training centres or training camps) with the Faculty’s own test vehicle. Mobile spirometry systems, photoelectric barriers and radar systems, force and contact plates, GPS-based motion analysis, various load measurement sensors for individual application and miniature telemetry systems for wireless signal transmission enable virtually every form of mobile measurement. Special sport-specific in-house developments and validated test batteries (e.g. goalkeeper RAS test, Hit & Turn tennis test, force measurement system for in-line skating and much more) as well as a mobile eye test laboratory are available for use at any time.

In addition, field research and field experiments are also conducted in the area of social science. They include analyses of sportive, playful and other performative activities and contextual conditions, in various areas of sports and exercise culture, in formal, non-formal and informal settings. Questions that are generated from observations in the field are just as much in focus as the exploration of newly emerging trends and forms of movement.

TMG-LABORATORY
The central component of the TMG lab is a non-invasive method for muscle function testing, tensiomyography (TMG). It measures several muscle contractile properties, for example, the mechanical displacement of the muscle...
SPORTS FACILITIES

The equipment in our sports facilities complies with the most up-to-date requirements and allows teaching and practice-based research at the highest level. Sports equipment and audio-visual media such as music systems, video projector, ceiling cameras and so forth, are continually updated to meet current requirements. Competitive meets that conform to national sports association regulations, as well as presentation events can also be hosted in our facilities. Seminar rooms connected to our sports facilities are equipped with modern technology to support Bochum sport science’s characteristically close interconnection between theory and practice.

INDOOR FACILITIES

Three multi-functional multi-segment hall complexes offer optimal conditions for sports such as volleyball, football, basketball, badminton, tennis, table tennis etc. For track and field athletics, an indoor pole vault facility and a retractable sand-filled pit are available. One hall is specifically equipped for gymnastics with standard, but also innovative equipment such as an Airtrack tumbling track. For combat sports, a large number of Judo mats is available. A climbing wall which can be set to different levels of difficulty completes the offering.

A large studio with a mirrored wall is used for gymnastics, dance, movement arts, and various forms of body work in the areas of creativity and health. The newly refurbished weight room accommodates seminars and continuing education in strength training and weight lifting, and is also available for free training.

OUTDOOR FACILITIES

The Faculty’s stadium with its 400 m tartan track, long jump and shot put facilities, two throwing cages and pole vault systems, all athletics disciplines can be pursued optimally. Well maintained grass pitches equipped with floodlights and public address systems are used for football, rugby, ultimate Frisbee and other exercise programs. The tennis facility houses four well-maintained clay courts with fully automatic sprinkler systems. The adjacent tennis house with veranda and lounge area provides ideal conditions for the theoretical deepening of the lesson content. A beach facility is available for beach volleyball, beach handball, beach basketball, beachminton and other beach sports variants.
UNIVERSITY SWIMMING POOL
The swimming pool with its ten 50 m lanes, shallow water area, diving board and training pools is used for swimming, diving, water polo and other forms of games and exercise. The available modern equipment also accommodates scuba diving and aqua aerobics.

BOATHOUSE
Nearby Lake Kemnade is available for water sports such as rowing, canoeing, stand-up paddling, etc. The Faculty’s own boathouse „Gibraltar“ boasts an extensive inventory of up-to-date equipment.

EXCURSION SITES
Practical instruction in snow sports (skiing, snowboarding) takes place during field excursions to Valmorel (France). The water sports of sailing, windsurfing and kitesurfing are taught in Elburg on the Veluwemeer (Lake Veluwe), Netherlands. Training conditions there are optimal, and affordable student accommodation is available adjacent to the beach.

Long-time local cooperating partners support the Faculty’s teaching teams. Trend sports such as surfing and hiking / climbing are realized as excursions in different locations and with cooperating partners. City or private club facilities are rented for ice skating, ice hockey and hockey.
SERVICES AND PROGRAMS

STUDENT COUNSELLING

Four of the Faculty’s full-time employees serve as student counsellors. They provide prospective and current students with degree-specific information, offer orientation guidance during the transition from school to university, during students’ studies, and provide career-related information. The counsellors offer advice and suggest courses of action tailored to the individual student’s circumstances, in particular related to question of study organization, course priorities and selection, exam issues, transfer of course credits, the development of individual course selection, to the design of individual programs of study, as well as providing career advice to students after graduation. Cross-discipline student counselling is the responsibility of the university’s central student counselling service.

The Faculty’s student counsellors can be reached at studienfachberatung-sport@rub.de. Office hours and contact details will be found on the Faculty’s homepage under the “Facilities” tab. Contact information for counsellors for the different Bachelor’s and Master’s degree programs will be found both in this brochure and on the Faculty homepage.

STUDENT COUNCIL

The Faculty of Sport Science’s Student Council (Student Union) deals with technical questions, issues and concerns raised by fellow students. The committed Council team organizes and designs orientation events for incoming students, and helps students with study-related questions. In addition, student meetings and events are organized.

The Council plays a significant role within the Faculty and is an important voice for student opinions. Through actively participating in all of the Faculty’s administrative committees, it contributes to the improvement of study conditions, the organization of programs of study, program reform, exam and study regulations, and to the quality of academic teaching. On a weekend prior the sports aptitude test, the Council organizes special preparation days for the “admission test” candidates. Here, students from the council offer specific solutions and useful tips for the test.

MEDIA SUPPORT

The duties of the Media Support group include guidance and support for sports students related to media in academic teaching; technical support for students during the completion of theses; media and technical support for faculty and staff; and technical support for faculty and staff during the planning, organization, and implementation of sport-scientific projects.
EQUITY POLICIES

The Faculty of Sport Science considers the equal treatment of men and women as a cross-sectional undertaking and integrates it in the structure and decision-making of all its organizational and personnel development processes. In addition, a variety of steps are taken in the following areas: Equal opportunity-informed hiring decisions, career and human resource development initiatives for woman scientists, and continuing education opportunities for university employees.

The Faculty has achieved notable successes by maintaining gender parity in the allocation of faculty positions, and by increasing the proportion of doctorates conferred on women.

With its participation in “Girls’ Day”, at school labs, summer camps and other events for secondary and high school students, the Faculty particularly seeks to attract girls to study sport science at Ruhr-University. To ease the transition from university life to the world of employment, the Faculty has launched a mentoring program which among other things aims to assist women in professional networking, and in better positioning themselves in their professional environments.

Equity representatives in their respective faculties will be glad to answer any questions concerning Ruhr-University's equity policies. Further information is available under the “Facilities” tab on the Faculty homepage.

MENTORING

The Faculty has offered the STARTKLAR mentoring program to its students since 2005. STARTKLAR provides sport students an opportunity for personalized mentoring with experienced professionals and managers from different professional and occupational areas of sports. During the six-months program, the students gain insights into the requirements and tasks of specific occupational fields while receiving personal support in their professional development. The mentoring process involves individual consultations and feedback, career and professional orientations, transfer of strategic and practical knowledge, career planning, and well as networking support. The program provides a personal and private setting for undisturbed learning and experimentation, for the transfer of informal knowledge, and the discovery and development of professional skills and competencies.

The STARTKLAR program is targeted primarily at personality and committed M. Sc. students; free spaces may be assigned to bachelor students upon request.

Seminars that accompany the STARTKLAR program prepare the students for the mentoring process and the professional demands of the various occupational fields in sports. Students are also encouraged to utilize the career counselling and support services offered by Ruhr-University.
UNIVERSITY SPORTS

GOALS
University Sports (Inter-University and intramural sports) is the central point of contact for the students at Ruhr-University and its partner institutions in Bochum. University Sports is closely associated with the Faculty of Sport Science. The recreational and competitive intramural sports programs are targeted at students and university employees in general, but opportunities for performance and high performance sports are also provided.

INTER-UNIVERSITY SPORTS
In cooperation with the German Inter-University Sports Association (Deutscher Hochschulsportverband), about forty German university championships are organized annually. At these competitions, students – and staff – from all across Germany meet to compete for the top rankings in both team and individual sports. The Universiade is the premier event.

Ruhr-University is a partner institution for top tier high-performance sports, and is located in the vicinity of Olympic training centres in the cities of Wattenscheid and Dortmund. Studying in the Faculty of Sport Science therefore offers optimal conditions for studying and competing.

TOP ATHLETES STUDY IN BOCHUM
Students in the Faculty of Sport Science look back on numerous successes in varsity sports. The RUB football (soccer) team has won the German University Championship several times, and has participated in the EUSA Games, the European University Championships, in Cordoba, Spain. The women’s basketball team won second place at the European Championships in 2013, complementing a victory in the German University Championships. Successful varsity teams aside, several top international-level athletes have been enrolled in the Faculty of Sport Science:

- Annike Krahn (Football (soccer) World Champion, 2007; European Champion, 2009 & 2013)
- Caroline Ruhnau (European champion in swimming 2009)
- Kristof Wilke (Olympic champion in rowing eight 2012)
- Ole Keusgen (Universiade bronze medal in field hockey, 2013)

We in the Faculty of Sport Science offer our most cordial greetings to athletes everywhere! We endeavour to provide optimal conditions for the combination of education and performance sports, and to offer options for training as well as training partners, both at Ruhr-University and in the region. The primary contact person for top level student athletes is Prof. Dr. Michael Kellmann.
PROGRAMS OF STUDY
The Faculty of Sport Science offers different degree programs which adhere to internationally accepted systems of program progression and are divided into Bachelor’s and Master’s programs. The Bachelor’s program leads to the initial academic degree in a tiered degree program; standard program duration is three years. The Master’s program builds on the Bachelor’s program, and provides a more scientifically oriented and advanced continuation of the initial program; expected program duration is two years.

The Bachelor of Science (B. Sc.) with three areas of specializations (“Prevention and Rehabilitation Through Sport”, „Leisure – Health – Training”, and “Sport Management”) and the two Master of Science (M. Sc.) program profiles (“Diagnostics and Intervention in Sports”, and “Sport Consulting”) focus primarily on areas of occupational application outside the school system.

The B. A., with its dual-subject structure, offers its own distinct occupational and professional qualifications. B. A. studies can be continued at both the M. Ed. and the M. Sc. levels. Studying towards the B. A. requires equal course credits in two defined subject areas, in addition to courses selected from the cross-discipline optional courses. Students who enter the B. A. program to qualify as physical education teachers, must select one of the education core specializations for their second program subject. Completion of the M. Ed. degree qualifies students to enrol in teachers’ training colleges for senior high and comprehensive schools.
ADMISSION REQUIREMENTS

APPLICATION & ADMISSION
Please consult current admission regulations; they can be obtained via the Studiensekretariat (Registrar’s Office, or, Undergraduate Admissions Office). At the time of publication, the B. Sc., B. A. and M. Sc. programs are limited admissions programs; minimum admission standards (high school grade point averages) are determined by Ruhr-University. The B. Sc., B. A. and M. Ed. programs can be entered for either the winter or summer term. The M. Sc. begins in the winter term only. Applications for the limited admissions programs can be completed online at the Studiensekretariat web site. Successful completion of a Sports Aptitude Test (Sporteignungstest) is required for admission to the B. Sc and B. A. programs. Before commencing studies at the Master’s level, a mandatory counselling interview has to be scheduled; interview completion certification has to be presented at registration. For admission to the M. Sc. program, completion of a B. Sc and B. A. in the sport science major at RUB, as well as Bachelor degrees from other universities in the sport science field within the area of application of German Basic Law, are taken into consideration. In the case of applicants with a second completed B. A., the cumulative grade point average in both fields is used to determine eligibility. Furthermore, applications from students who have completed at least a six-term (three academic years) Bachelor’s program from a university within the area of application of German Basic Law in a sport science related field, will be approved by an admissions board; Sport Science-related degree programs are those Bachelor’s programs that include sports-related courses of study.

For program completion, documentary evidence of successful completion of courses that employ exams or other forms of performance assessment, is required. The following areas have to be covered:

- **Courses in the social sciences** (9 cp)
- **Courses in science and medicine** (9 cp)
- **Courses in methodology and teaching, in at least four different sports** (12 cp)

International students who obtained Bachelor’s degrees outside of the jurisdiction of German Basic Law are requested to apply at Ruhr-University’s International Office.

SPORTS APTITUDE TEST
Admission to the B. A. and B. Sc. programs is contingent on successful completion of a sports aptitude test (Sporteignungstest). The Certificate of successful completion has to be presented at registration; it is valid for two years. Note that registration for the Sports Aptitude Test and the application for admission to the program are two distinct and separate procedures.

Please follow the “Studies” link on the Faculty web page to obtain up-to-date information on dates, contents and application procedures and requirements for the Sports Aptitude Test.
BACHELOR OF SCIENCE (B. Sc.)

MAJOR FIELD OF STUDY
LEISURE – HEALTH – TRAINING

PROGRAM STRUCTURE
The B. Sc. degree program offers qualifications for various professional fields. It consists predominantly of foundational and introductory sport science courses (94 cp), optional courses in other faculties at Ruhr-University (15 cp), courses selected according to the specific profile, from the core areas of specialization (53 cp), an eight-week internship in a professional field (8 cp), and the Bachelor’s thesis (10 cp). Program completion requires a total of 180 cp.

„Leisure – Health – Training” is one of the three core areas of specialization students can select. It closely relates to practical sports fields of application.

PROGRAM GOALS
Development of analytical, planning, implementation, and evaluation competencies related to movement program development in the areas of leisure and recreation, health and training. Both traditional sports and current physical activity and leisure sports trends are discussed.

CONTACT
Marianne Bäcker | Dr. Arno Krombholz
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GENERAL MODULES (94 CP)
- **Modul 1:**
  Foundations of sport science (13 cp)
- **Module 2-4:**
  Methodological and didactic foundations of sports and human movement fields (36 cp)
- **Module 5-8:**
  Discipline-specific foundations of the social and natural sciences (36 cp)
- **Modul 9:**
  Advanced methods and didactics in sports and human movement fields (9 cp)

PROGRAM SPECIALIZATION MODULES (53 CP)
- **Modul 10:**
  Sports marketing (6 cp)
- **Modul 11:**
  Social and training science foundations of recreational and health sports (15 cp)
- **Modul 12:**
  Training intervention programs for specific professional and occupational fields (12 cp)
- **Modul 13:**
  Training intervention programs for specific areas of application and for specific target groups (12 cp)
- **Modul 14:** Student practice intervention (8 cp)
PROFESSIONAL FIELDS AND AREAS OF EMPLOYMENT

- sports clubs, sports associations
- public sector sports administration
- universities, schools, other educational institutions
- the media, sporting goods industries
- corporate sports programming, sport tourism
- recreation industries (for example, fitness studios)
- sports-related consulting (for example, personal training, performance diagnostics, health and life-style counseling)
BACHELOR OF SCIENCE (B. Sc.)

MAJOR FIELD OF STUDY
PREVENTION AND REHABILITATION THROUGH SPORTS

PROGRAM STRUCTURE
The B. Sc. degree program offers qualifications for various professional fields. It consists predominantly of foundational and introductory sport science courses (94 cp), optional courses in other faculties at Ruhr-University (15 cp), courses selected according to the specific profile, from the core areas of specialization (53 cp), an eight-week internship in a professional field (8 cp), and the Bachelor’s thesis (10 cp). Program completion requires a total of 180 cp.

“Prevention and Rehabilitation Through Sports” is one of the three core areas of specialization students can select. The program offers a comprehensive range of sports medicine-oriented courses supplemented with various applied physical activity offerings.

PROGRAM GOALS
Acquisition of competencies in physical activity and sports-related fields of the health care sector; knowledge acquisition in performance and functional diagnostics; planning and implementation of preventative and rehab-oriented physical activity programs, including the evaluation of therapeutic outcomes.

CONTACT
Dr. Ulrich Bartmus
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GENERAL MODULES (94 CP)
- **Modul 1:**
  Foundations of sport science (13 cp)
- **Module 2-4:**
  Methodological and didactic foundations of sports and human movement fields (36 cp)
- **Module 5-8:**
  Discipline-specific foundations of the social and natural sciences (36 cp)
- **Modul 9:**
  Advanced methods and didactics in sports and human movement fields (9 cp)

PROGRAM SPECIALIZATION MODULES (53 CP)
- **Modul 10:**
  Health: individual and society (4.5 cp)
- **Modul 11:**
  Medical and biomechanical foundations, functional diagnostics (13.5 cp)
- **Modul 12:**
  Training intervention programs for specific professional and occupational fields (12 cp)
- **Modul 13:**
  Sports for prevention and therapy in specific areas of application (15 cp)
- **Modul 14:**
  Student practice intervention (8 cp)
PROFESSIONAL FIELDS AND CAREER PATHS

- physical and medical rehab clinics
- clinics and medical practices with a prevention or rehab focus
- outpatient physical rehab centres
- sports club with a specific emphasis on preventative or rehab activities
- clubs, administrative bodies, and other institutions in the area of performance sports
- industry
- personal training
- health insurance companies
BACHELOR OF SCIENCE (B. Sc.)

MAJOR FIELD OF STUDY
SPORT MANAGEMENT

PROGRAM STRUCTURE
The B. Sc. degree program offers qualifications for various professional fields. It consists predominantly of foundational and introductory sport science courses (94 cp), optional courses in other faculties at Ruhr-University (15 cp), courses selected according to the specific profile, from the core areas of specialization (53 cp), an eight-week internship in a professional field (8 cp), and the Bachelor's thesis (10 cp). Program completion requires a total of 180 cp.

“Sport Management” is one of the three core areas of specialization students can select. The specialization's foundation is its interdisciplinary focus, and its emphasis on applied course contents in the area of Sport Management. Courses in the Faculties of Economics, Psychology, and Social Sciences are offered as part of the curriculum.

PROGRAM GOALS
Acquisition of core knowledge and competencies that qualify students for expert and leadership roles in sports associations and the sports industry, in the areas of organization, marketing and management.

CONTACT
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GENERAL MODULES (94 CP)
- Modul 1:
  Foundations of sport science (13 cp)
- Module 2-4:
  Methodological and didactic foundations of sports and human movement fields (36 cp)
- Module 5-8:
  Discipline-specific foundations of the social and natural sciences (36 cp)
- Modul 9:
  Advanced methods and didactics in sports and human movement fields (9 cp)

PROGRAM SPECIALIZATION MODULES (53 CP)
- Modul 10:
  Law and the economy (9 cp)
- Modul 11:
  Foundations of management (12 cp)
- Modul 12:
  Financial management (6 cp)
- Modul 13:
  Marketing (12 cp)
- Modul 14:
  Applied sport management (14 cp)
PROFESSIONAL FIELDS AND CAREER PATHS

- non-profit sports organizations (sports clubs, regional and national sports associations)
- public sector sports administration
- private sector companies (multi-sports facilities, fitness studies, health centres, corporate sports programming)
- event marketing agencies
- marketing operations of professional sports clubs
- corporate marketing departments (sport sponsoring)
BACHELOR OF ARTS (B. A.)

PROGRAM STRUCTURE
The B. A. program is a 180 cp, dual-subject program which combines a concentration in sport science with studies in a second subject area. Both subjects areas require the same number of credit points (65 cp each) for successful completion; courses in the subject-specific areas are complemented with courses from the general options area (30 cp) for the acquisition of additional cross-subject competencies. In addition, students have to pass a degree final exam and complete a Bachelor’s thesis (20 cp).

The six-term degree program in sport sciences consists of eight modules that combine foundational and applied perspectives. With the Bachelor of Arts students obtain a university degree emphasizing applied professional qualifications.

B. A. students must combine sport science with a teaching-oriented second subject, if they intend to apply for admission to the M. Ed. program. In addition, teaching-oriented courses must be selected from the general options area.

PROGRAM GOALS
Acquisition of foundational subject-specific knowledge, of competencies and instructional methods applicable in- and outside the school system, and of practical and discipline-specific qualifications for the conceptual, organizational and substantive development of sports.

CONTACT
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SPORT SCIENCE MODULES (65 CP)
- **Modul 1:**
  Foundations of sport science (4.5 cp)
- **Modul 2:**
  Methodological and didactic foundations of individual sports and human movement fields (12 cp)
- **Modul 3:**
  Methodological and didactic foundations of ball games (12 cp)
- **Modul 4:**
  Methodological and didactic foundations of outdoor sports, and of additional areas in sports and human movement (5 cp)
- **Modul 5:**
  Anatomic and physiological foundations of physical activity (7.5 cp)
- **Modul 6:**
  Movement and Training (9 cp)
- **Modul 7:**
  Sport and Society (9 cp)
- **Modul 8:**
  Pedagogical and educational foundations of physical activity (6 cp)
The dual-subject B. A. is a distinct degree leading to defined professional qualifications. Potential areas of employment and professional application range from sports clubs, sports associations, and corporate and private sector sports programming, to youth centres, child day care facilities and adult education institutions.

The B. A., combined with the subsequent Master of Education (M. Ed.) is an admissions-level prerequisite for students intending to qualify as physical education teachers in the school system. Universities and other educational institutions offer further options for professional employment.
MASTER OF SCIENCE (M. Sc.)

MAJOR FIELD OF STUDY

DIAGNOSTICS AND INTERVENTION IN SPORTS

PROGRAM STRUCTURE

“Diagnostics and Intervention in Sports” is one of two possible specializations offered in the M. Sc. program within sport science.

Successful program completion requires a total of 120 cp from courses offered across four general modules (1-4), four profile-specific modules (5-8), final degree exams in two module areas, and a M. Sc. thesis.

PROGRAM GOALS

Acquisition of knowledge and competencies in the management and planning of adaptational processes related to physical activity, across the entire range from high performance sports to activities for people with a disability. Competencies in the application of performance diagnostics procedures in sports medicine, movement and training science, while developing a critical awareness of methodological issues in performance diagnostics.

Acquisition of evidence-based specific scientific knowledge concerning the effectiveness of classical and contemporary training intervention.

Qualification for scientific work within the range of subjects of the study specialization, through a variety of internships and projects.

PROGRAM MODULES (83 CP)

- **Modul 1:**
  Optional studies in sport science (6 cp)

- **Modul 2:**
  Philosophy of science and empirical methods (9 cp)

- **Modul 3:**
  Mentoring (5 cp)

- **Modul 4:**
  Communications (5 cp)

- **Modul 5:**
  Optimization of coordinative, technical and tactical performance (12 cp)

- **Modul 6:**
  Optimization of physical performance (21 cp)

- **Modul 7:**
  Scientific internship (9 cp)

- **Modul 8:**
  Scientific project (16 cp)

CONTACT

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PROFESSIONAL FIELDS AND CAREER PATHS

- professional sports clubs
- sports associations at the federal and state levels
- Olympic training centres, elite sport centres
- independent contracting
- health centres, rehab clinics, doctor's practices, personal training
- scouting, analysis and diagnostics responsibilities in the ball games
- sporting goods industries - development and evaluation of training and measuring equipment
- university teaching and research careers
MAJOR FIELD OF STUDY
SPORT CONSULTING

PROGRAM STRUCTURE
“Sport Consulting” is the second specialization offered in the M. Sc. program within sport science.
Successful program completion requires a total of 120 cp from courses offered across four general modules (1-4), four profile-specific modules (5-8), final degree exams in two module areas, and a M. Sc. thesis.

PROGRAM GOALS
Acquisition of qualifications for scientifically sound consulting with organizations, groups and individual actors in sports or sports-related fields, on issues of sports, organizational, team and career development.
Teaching of theories, methods and concepts from socio-logical, and economic organizational and management research, as well as from individual and organizational psychology. Practical application of knowledge in scientific internships and projects, partially in cooperation with external institutions.

CONTACT
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PROGRAM MODULES (31 CP)
- **Modul 1:**
  Optional studies in sport science (6 cp)
- **Modul 2:**
  Philosophy od science and empirical methods (9 cp)
- **Modul 3:**
  Mentoring (5 CP)
- **Modul 4:**
  Communications (5 cp)
- **Modul 5:**
  Economic and sociological aspects of sport consulting (19 cp)
- **Modul 6:**
  Psychology in sport consulting (14 cp)
- **Modul 7:**
  Scientific internship (9 cp)
- **Modul 8:**
  Scientific project (16 cp)
**PROFESSIONAL FIELDS AND CAREER PATHS**

- head of department / consultant in public sports administration (state ministries, sports authorities), in organized sport (sports associations) or in industry (sponsoring, corporate sports programming), sport management / administration in large sports clubs, commercial sports facilities or professional elite sports

- career consulting at Olympic training centres and elite sports centres, coaching of physical education teachers, teams, and coaches

- participation in market research and sports agencies, self-employed as consultant or as sports provider

- development and evaluation of sports-related intervention programs at national and private institutions (e.g., in the fields of social integration through sports, preventive health care and local sports development)
MASTER OF EDUCATION (M. Ed.)

MASTER OF EDUCATION - SPORTS

PROGRAM STRUCTURE
The 120 cp M. Ed. program extends over four semesters (including an internship, and a degree final exam semester); successful completion requires courses selected from two subject areas, studies in educational science, degree final exams, and a Master’s Thesis.

In the sport science subject area advanced teaching competencies in specific physical activity fields are acquired in courses selected from across four modules; advanced topics from the social sciences, arts and humanities, and the natural sciences are investigated; and topics in the pedagogy and didactics of sports are discussed in a school sports context.

PROGRAM GOALS
The sport-scientific, sport-practical, and pedagogical and instructional-methodological components of the M. Ed. program complement each other such that students acquire professional qualifications for entering a physical education teaching career at the secondary or senior high school levels.

Students acquire teaching and instructional competencies, and an in-depth appreciation of the multitude of instructional options in physical education classes.

CONTACT
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PROGRAM MODULES (31 CP)

- **Modul 1:**
  Sports and human movement areas in the physical education context (6 cp)

- **Modul 2:**
  Discipline-specific advanced studies: Consolidation of sport-scientific knowledge to establish the foundations for teaching and learning in the physical education context (7 cp)

- **Modul 3:**
  Sport pedagogy and sport didactics. Planning, organization and analysis of physical education classes; current issues in physical education pedagogy (7 cp)

- **Modul 4:**
  Teacher training for physical education: One-semester practice teaching: Preparation, mentoring, and evaluation (11 cp)
PROFESSIONAL FIELDS AND CAREER PATHS

- The M. Ed. degree offers employment and career opportunities predominantly in the school sector, in specific areas of adult and further education, and in university-based research and teaching.
TRANS-DISCIPLINARY AND PRACTICAL

Phenomena and research issues are conceptualized within sports-practical contexts, and investigated from the explanatory perspectives of the different sub-disciplines, up to and including the level of basic research. In this process, we seek cross-discipline engagement of the Faculty’s different areas of research and teaching, with Ruhr-University’s other faculties, and with international research partners.

SUSTAINED EXTERNAL FUNDING

In comparison to other sport science university departments, the Faculty has been continually successful in attracting substantial external grants over the past ten years. 2012 was the most successful year to date, with external grants almost reaching € 1 million. Current successful significant grant applications are indicative of future increases in our overall grant funding.

INTERNATIONAL IN OUTLOOK

The establishing of the Commission for Early Career Scientists, Research and International Affairs is the institutional expression of our trans-disciplinary global outlook; it has already led to several tangible results. Examples that may be mentioned are the adaptation of the Ph.D. program regulations to suit the needs of international doctoral students, cooperation with sport science institutions in Australia, Brazil, China, Canada, and Turkey, the steadily increasing number of publications in highly ranked international journals, regular English-language course listings in the M. Sc. program, and, lastly, research visits by international sport scientists.

ECSS METROPOLIS RUHR

Organized under the aegis of the European College of Sport Science (ECSS), Ruhr-University will host the 2017 ECSS Congress, and follow in the steps of locations as prestigious as Oslo, Liverpool, Barcelona, Amsterdam, and Vienna.

The Convention’s motto is “sport science in a Metropolitan Area”, and hosting will be a responsibility shared by Ruhr-University Bochum, University Duisburg-Essen, and Technical University Dortmund; up to 3000 scientists from across the globe are expected to attend.

The ECSS Convention has traditionally been the best international meeting place for young researchers in sport science from Ruhr-University and from around the world, and for those vying for the ‘Young Researcher Award.’
From a scientific point of view, human movement results from a well-coordinated activation of skeletal muscles under the given physical conditions. In this context, the Department of Human Movement Science investigates the interaction of the nervous system and the resulting biomechanics of human muscles. The aim of our research is a better understanding of neuromuscular mechanisms as a basis for diagnosis and training.

For investigating the neuromechanics of human movement we use a wide range of methods including 3D-motion-analysis, dynamometry, electromyography, and ultrasound. Modulations of the central and peripheral nervous system are further examined by electrical nerve stimulation, cervicomedullar stimulation as well as transcranial magnetic stimulation.

RESIDUAL FORCE ENHANCEMENT (RFE) IN HUMANS
We conducted a series of studies to show that there is a persistent increase in force production after stretch contractions of large in vivo human muscles. Current work focuses on the relevance of RFE for everyday movement in terms of reduced metabolic costs and its trainability.

ECCENTRIC (LENGTHENING) MUSCLE ACTIVITY
Although lengthening contractions occur in a variety of human movements the underlying force production and neural control is poorly understood. Current work involves understanding neural modulations in the neural control of lengthening and subsequent isometric contractions.

ANKLE JOINT NEUROMECHANICS
In everyday human locomotion the ankle joint muscles are activated in combination with other muscles like for instance the knee extensor muscles. Current work explores the distinct differences in the neuromuscular function and control of the m. triceps surae when activated in isolation or in combination with the m. quadriceps femoris.

MULTI-JOINT LEG EXTENSION
The simultaneous activity of several joints and muscles of the lower extremity is a key feature of human locomotion. Since we showed that features of neuromuscular function of single-joint (e.g. knee extension) and multi-joint contractions (e.g. leg extension) differ, current work investigates force-velocity properties of multi-joint leg extensions.

ADMINISTRATION & CONTACT
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TRAINING & EXERCISE SCIENCE

Training Science focuses on training and performance development in the different areas of sports (high performance sports, school sports, and recreational sports). We aim to determine the scientific foundations of practical intervention in sports from an holistic and applied perspective. At present, our research group maintains the following projects:

TESTING & TRAINING IN BALL GAMES
The focus is on development, evaluation and standardization of specific performance tests for ball games. Among other things, a specific test battery for diagnostics of the soccer goalkeeper performance was developed. Moreover, the effectiveness of training interventions (e.g. high-intensity endurance training and functional athletic training) is evaluated for the sports games.

ENDURANCE & STRENGTH TRAINING
In the field of endurance training we work with aspects of recreational sports (e.g. the influence of music on motivation and performance) and competitive sports (e.g. the optimization of pre competition warm-up). In the area of strength training we investigate the effects of eccentric strength training and we develop training intervention programs for throwing and hitting power of the upper extremity.

EXERCISE SCIENCE IN CHILDHOOD
Metabolic short and long term effects as well as the stress tolerance of aerobic and anaerobic training loads in children are examined. High-resolution methods of 31P-MRS are used to determine details of skeletal muscles metabolics in children compared to adults. The results lead to age related intervention programs for school and competitive sports.

TALENT RESEARCH
The physical and motor development of young athletes of German youth squad athletes in different sports in the age from under 12 under 18 is monitored. Accompanying sociological and training relevant data are documented. The sports basketball and tennis are currently in the spotlight. Retrospectively talent sensitive and selection relevant criteria are detected.

MANAGEMENT OF RECOVERY IN SPORTS
The aim of this multicentre and long term project REGman is to develop evidence based recovery strategies after different sport specific conditions. To avoid imbalances between training load and stress tolerance a systematic research on recovery offers future perspectives.

ADMINISTRATION & CONTACT
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SPORTS MEDICINE & SPORTS NUTRITION

Sports medicine is concerned with the influence of physical activity, training and sport as well as the lack of physical activity on healthy and sick people of every age to apply the findings to the fields of prevention, therapy and rehabilitation and also to the sportsperson him or herself. Moreover sports medicine analyses the significance of physical activity of every level for health and performance.

EXERCISE PHYSIOLOGY IN ALTITUDE ENVIRONMENTS OR UNDER HYPOXIC CONDITIONS
Behaviour of endurance capacity, strength and other physiological parameters (e. g. visual abilities) and their adaptation under normobaric and hypobaric hypoxic conditions.

SPORTS NUTRITION
Effects of different nutrition modifications on performance and regeneration; effects of nutrition, load and altitude exposition on acid-base status.

COMPETITIVE SPORTS, EXERCISE PHYSIOLOGY
Analysis of specific demands in different sport games; optimisation of performance diagnostics and training control; endurance and strength training across the menstrual cycle.

HEALTH AND OLD AGE
Physical activity, multi-morbidity and multi-medication with elderly people; effectivity of movement programs for chronically ill and mobility-restricted older adults with structured support by the general practitioner’s practice.

BACK PAIN
Development, evaluation and transfer of functional diagnostics, prevention and therapy with back pain for top-level sports and society as a whole.

SPORT SAFETY, ATHLETIC INJURY RESEARCH
Analysis of sport injuries in the field of sport clubs and in the professional team sports football, handball and ice hockey as well as development of measures to prevent injuries.

SENSORY PHYSIOLOGY AND SPORTS
Visual demands in different sports and visual performance profiles; motion perception and oculomotor performance; perception training and sports vision training; regulation of balance.

ADMINISTRATION & CONTACT
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SPORT PSYCHOLOGY

BIOPSYCHOSOCIAL ASPECTS ON LOW BACK PAIN
In the nationwide research project „RanRücken“ it is explored, how far biopsychosocial factors have an impact on non-specific low back pain. Furthermore, differences between athletes and general population regarding biopsychosocial factors are planned to be investigated. Based on these results, a psychosocial intervention approach will be developed and tested for application and use to support low back pain therapy.

STRESS CONDITIONS OF COACHES
Coaches belong to a profession which has to deal with emotional and physical stress regularly due to their working structures and field of activities. As this field of research is unexplored for German coaches so far, the aim of this project is to extract personal and environmental factors causing higher stress conditions within the German coaches culture.

RESEARCH FOR TALENTS & PROMOTION OF YOUNG TALENTS
What makes a talent a talent and which skills can lead to maximum performance? These questions will be explored by assessing psychological characteristics with regard to motivation and volition. The results are to be used to optimize the individual development of young talents in different types of sports and to improve the performance of athletes. Furthermore, the development of volitional skills should counteract dropout of young talents.

DEVELOPMENT OF TEAM ORIENTED TRAINING FOR OPTIMIZATION OF PSYCHOLOGICAL SKILLS
The goal of this research project is to develop and to evaluate psychologically oriented exercises, which could be integrated in sports and games (e.g. basketball, football) within team training. The exercises should support the athletes to develop and to improve self-regulative skills.

REGENERATION MANAGEMENT IN TOP-CLASS SPORT
The aim of this multicentric and long-term project REGman is to develop evidence-based regeneration strategies, differentiated into training stress/load and sport-specific conditions. To avoid imbalances between training stress/load and its maximum capacity, systematic research on regeneration offers a great opportunity.

ADMINISTRATION & CONTACT
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SPORT HISTORY

Sport history examines the phenomena of human movement across all historical epochs and all human cultures. Sport-historical inquiry ranges from a concern with theories of the origins of sport, to the investigation of antique, medieval and modern sport, and to a concern with contemporary historical sports phenomena such as national-socialist physical education, or the competitive sports systems of former East Germany (German Democratic Republic), while not neglecting phenomena such as the Mayan ball game, or Japanese sumo.

History, however, does not exist as a given past, but is continually recreated in people’s imagination. By reappraising their past, individuals and human groups develop and change their identity. Sport history as a sub-discipline of sport science seeks to analyse the sporting past by tracing socially relevant questions using the methodological instruments of historical science, in order to advance and objectify our historical knowledge. Specifically, the Research Group Sport History focusses on the following research areas:

THEORETICAL AND METHODOLOGICAL BACKGROUND OF SPORT HISTORY
What is history? What purpose does historiography serve? What is the benefit of the hermeneutic approach to historical science?

THE HISTORICAL DEVELOPMENT OF SPORTS, WITH SPECIFIC EMPHASIS ON FOOTBALL AND TENNIS
What are the origins of modern sports and modern sports culture in Germany? What is the significance of football for the changing social identity of the Ruhr Valley region?

COMPANY SPORT AND CORPORATE SPORTS PROGRAMS
The development of public and corporate sports from the German Empire to the Federal Republic of Germany. What were the goals and socio-political significance of corporate and public sports?

HISTORY, SPORT, HEALTH AND AGE(ING)
Historical perspectives on aging: what is the historical significance of physical activity for the old? What are the ideals of health and physical activity in the history of mankind?

ADMINISTRATION & CONTACT
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SPORT MANAGEMENT & SPORT SOCIOLOGY

ECONOMIC AND SOCIOLOGICAL ASPECTS OF PHYSICAL ACTIVITY FOR HEALTH
Investigations into the financial incentives offered by the health insurance industry to individuals participating in health-oriented physical activity practices in gyms, voluntary sports clubs, and other organizations. The research project explores whether these financial incentives motivate people who otherwise would not participate in such physical activity programs, or whether they elicit opportunistic responses.

ECONOMICS OF LEAGUE SPORTS
In Europe, top-level team sport clubs are faced with widely varying economic conditions to develop their organization and revenues. This research project investigates these conditions for the highly professionalized men’s football, handball, ice hockey and basketball leagues on the one hand, and for amateur sports such as women’s football and women’s handball, on the other. A new project focuses on the role of league tournaments in individual sports such as golf, tennis, triathlon, and swimming.

MANAGEMENT OF SPORTING EVENTS
Using an event leveraging approach, major sporting events are analysed to explore the social and sport development impacts of sporting events (FIFA Women’s World Cup, local youth sport festival).

MARKET RESEARCH IN WOMEN’S FOOTBALL
A significant number of women’s Bundesliga football clubs in Germany suffer from low and unstable stadium attendance. Spectator surveys at all Bundesliga clubs in 2006 and 2012 are used to explore spectator social profiles and consumption patterns, as well as their ratings of the event and the stadium infrastructure. The project supplies data for the development of marketing strategies aimed at increasing attendance rates at women’s football matches.

DEVELOPING ORGANIZATIONAL STRUCTURES OF SPORT ASSOCIATIONS AND VOLUNTARY SPORTS CLUBS
The increasing number of girls and women entering football is taken as an example to investigate the ongoing organizational challenges faced by football associations, and by amateur as well as professional football clubs.

ADMINISTRATION & CONTACT
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SPORT PEDAGOGY AND SPORT DIDACTICS

TO THE SIGNIFICANCE OF MOVEMENT, PLAY AND DANCE IN CULTURAL EDUCATION
The huge success of cultural education projects is often attributed to the arts. Although over the last couple of years the amount of dance projects in schools has expanded rapidly, the significance of movement, play and dance in this field is hardly being considered. Therefore, this cooperative study evaluates the sustainability of dance projects. It focuses on analysing the specific nature of instruction methods of dance artists and dance pedagogues in the school setting.

SHAME AND EMBARRASSMENT IN PHYSICAL EDUCATION
Based on a survey in the context of secondary school concrete embarrassing situations in physical education are investigated. In addition the link between shame and the self (self-concept, development of identity) is evaluated in a follow-up study.

CREATING A MODEL OF COMPETENCE FOR SCHOOL SPORT
As a result of the implementation of competence-oriented curricula for physical education in German schools there is a need for the creation of a model that identifies the main goals of learning. In a heuristic way we describe different dimensions and levels of competence which provide orientation for the process of planning sports lessons in the school setting.

CONCEPTS FOR PLANNING SPORTS LESSONS IN THE SCHOOL SETTING
Based on classic didactic models, this research focuses on the development, implementation and evaluation of a structured concept to support teachers in their professionalization. The concept aims at supporting teachers in planning and organizing competence-oriented physical education.

THE PRACTICE OF GIVING GRADES IN PHYSICAL EDUCATION
This research project aims at gaining insight into the rating and grading practice of physical education teachers: what do they rate, how do they rate, what do they think about their own rating practice and what kind of significant problems do they experience. In order to reconstruct these patterns of interpretation and choices of action we used methods of empirical social research, particularly the qualitative interview.

ADMINISTRATION & CONTACT
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SPORT DIDACTICS & EXERCISE

The teaching and research area “type of sport and movement fields” develops, coordinates and accomplishes courses into practice, theory and principles of teaching. Special indicators of these seminars are the close conjunction of theory and practice.

Thirteen permanently employed university lecturers and fifteen experienced lecturers secure a high qualified and diverse supply with 28 different movement fields of the individual sport, the team sport, outdoor sports and from other fields. The equipment of the sports facilities satisfies the requirements on an advanced and contemporary level. Therefore they guarantee education and research related to practice on the highest level.

The stuff members associate close connections with the specific associations, the clubs, the cultural facilities etc. and enable the acquisition of various licences in events and seminars.

The types of sport and movement fields outline an interface of the different sports scientific branches, specify the theories and illustrate their connection. The employees initiate research projects and/or work on interdisciplinary projects, for example:

- Comparative analysis of methodological approaches in alpine skiing with regard to different concepts of motor learning.
- Modelling of specific load and regeneration strategies in the sports of volleyball and beach volleyball (participation in the research project “Regeneration Management in Elite Sports”).
- Scientific optimisation of training-based performance improvements in talented young basketball players.

ADMINISTRATION & CONTACT
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CENTRE FOR SPORT PSYCHOLOGY

The Centre for Sport Psychology (ZFS) is integrated into the Sport Psychology Research Group. It facilitates direct connections between theory and research in sport psychology, and practical application in the different areas of sports. Our resource-oriented research focuses particularly on the optimisation of psychological competencies and skills that are relevant for performance.

ZFS offers psychological and sport-psychological consultation, diagnostics, development, mentoring, and intervention. Our service offerings are targeted at athletes, coaches, and sports associations at all levels of performance, and at parents, public sector organizations, industry, and fitness and health centres.

CENTRE FOR DIAGNOSTICS & INTERVENTION

The Centre for Diagnostics & Intervention in Sports (ZeDI) combines the competencies of the Training Science and Movement Science Research Groups. It aims to assist promising junior athletes, established performance athletes, as well as recreational athletes, with the optimization of their training planning.

Services offered by ZeDI include performance diagnostics, training planning consultations, training intervention, with an emphasis on running, triathlon, and sport games. ZeDI’s unique strengths are the sport-specific competencies of its team members, and their high mobility.

OLYMPIC TRAINING CENTRE WESTFALEN

The Olympic Training Centre Westfalia (OSP), an institution for the promotion of top-level sports within the region, is the third largest of 20 Olympic training centres within Germany for top-level athletes of the Olympic sports.

In addition to the operational headquarters located in Dortmund there are branches in Bochum, Warendorf and Winterberg. At the Faculty of Sport Science of the RUB (as an outpost) top-level athletes can get sports-medical, training-orientated and sport-psychological advice and support.

LSB MEDICAL CHECKUP CENTRE

The Department of Sports Medicine and Sports Nutrition is an officially licenced medical checkup centre of the regional sports confederation LSB NRW and guarantees optimal sports-medical care of young athletes in several sports.

DFB TALENT DEVELOPMENT PROGRAM

The Faculty of Sport Science is an official support station of the German Football Association’s (DFB) Talent Development Program.
CULTURAL EDUCATION
The profile-building Cultural Education studies allow students to qualify for the growing area of cultural education in schools and complete certification. Through theoretical and practical analysis, for example in »on-site« projects, the aesthetic expressive dimension of education can be experienced, so that future teachers can work towards a creative teaching and learning culture in everyday school life.

AG SAFETY IN SPORTS
ASIS is a circle of experts from different institutions trying to develop measures for the prevention of sport injuries and to transfer these measures into sport practice; members of this circle belong to sport organisations, universities, health insurance companies and public as well as private insurances. RUB Sports Medicine is a founding member and has been committed to these aims since many years on the national and also on the international field.

RETROSPECTIVE: DANCE
When students enrolled in the dance activity courses set out to prove their choreographic skills, remarkable things can happen. Successive generations of students develop their own movement concepts, and design highly individualized performances. The annual Retrospective: Dance makes the best pieces available to public audiences, and places them in the limelight provided by the professional production environment of Ruhr-University’s Musisches Zentrum.

SPORT MANAGEMENT SYMPOSIUM
The annual Bochum Sport Management Symposium assembles participants from the sports industries, sport and economic sciences to debate current developments and economic problems of specific areas in sports. The Bochum Symposium aims to effect knowledge transfers between industry, university, and sports organizations, as well as networking with representatives from the sports industries.

CONFERENCES AND CONGRESSES
The Faculty of Sport Science regularly organizes national and international conferences and congresses. Current examples are the 2017 Congress of the European College of Sport Science (ECSS), and the 2015 Conference of the Sport Pedagogy Section of the German Association for Sport Science (dvs). The inaugural Bochum Physical Education Days gathering is scheduled for 2015; it will assemble teachers and interested professionals from all types of schools.

CAREER CAFÉ
The biennial Career Café seeks to attract talented young academics by providing information on doctoral programs to the Faculty’s students and employees. Questions concerning professional qualifications and career planning in sport science are discussed in informal exchanges as well as during moderated expert panel sessions. cussions, issues surrounding sport scientific qualifications and career planning are brought up.