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Infographic: STEM and Medical Careers Related to Sports

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SCIENCE IN SPORTS

SPORTS SCIENTIST

- Improve athlete health and performance
- Develop training programs
- Perform experimentation and research

**MAJOR IN:**
- Exercise Science
- Kinesiology
- Exercise Physiology
- Biomechanics
- Movement Science

**AVERAGE SALARY:** $59,797

MATERIALS SCIENTIST

- Research materials
- Develop new products
- Enhance existing products
- Testing and experimentation

**MAJOR IN:**
- Material Science
- Chemistry
- Materials Engineering
- Chemical Engineering
- Mechanical Engineering

**AVERAGE SALARY:** $73,954

SPORT PSYCHOLOGIST

- Enhance athlete performance
- Develop mental strategies
- Help with pressures and stresses of competing

**MAJOR IN:**
- Sports Psychology
- Psychology
- Sports Science
- Performance Psychology
- Kinesiology

**AVERAGE SALARY:** $70,000

DATA SCIENTIST

- Data-analytics problems
- Corrects data sets and variables
- Devising models and algorithms
- Interpreting data to solve problems

**MAJOR IN:**
- Mathematics
- Statistics
- Computer Science
- Management
- Information Systems

**AVERAGE SALARY:** $72,000

NOTE: This infographic is based on findings from a larger study titled, Gamified Online Platform to Support Student-Athlete Career Readiness, funded by the NCAA Innovations in Research and Practice Grant Program.
TECHNOLOGY IN SPORTS

**IoT Architect**
- Control cameras and sensors
- Capture accurate and real-time data
- Ensure security of the network
- Protect data from being hacked

*MAJOR IN:*
- Computer Science
- Computer Engineering
- Mechanical Engineering
- Electrical Engineering
- Unmanned Aircraft Systems

*AVG. SALARY:* $77,798

**Video Game Designer**
- Create core features of games
- Design characters
- Develop goal and plot of games
- Engage and entertain players

*MAJOR IN:*
- Game Design and Development
- Computer Science
- Software Engineering
- Artificial Intelligence
- Design and Development Analysis

*AVG. SALARY:* $62,260

**Engineering Technician**
- Solve technical problems
- Research and development
- Manufacturing and construction
- Inspection and maintenance

*MAJOR IN:*
- Engineering Technology

*AVG. SALARY:* $47,916

**Biological Technician**
- Collect and test samples
- Analyze results of substances
- Use lab instrumentation and robotics
- Develop computer software

*MAJOR IN:*
- Biological Technology
- Biology
- Science
- Life Sciences

*AVG. SALARY:* $51,770

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ENGINEERING IN SPORTS

SPORTS ENGINEER
- Research of areas in sports
- Develop technologies, products, and processes

MAJOR IN:
Mechanical Engineering
Industrial Engineering
Biomechanics
Computer Science
Aeronautical Engineering

AVERAGE SALARY: $85,860

3-D PRINTING ENGINEER
- Develop printing processes
- Recommend products to print
- Utilize computer-aided design

MAJOR IN:
Materials & Chemical Science
Mechanical Engineering
Electronic Engineering
Mechatronics
3D Modelling/Industrial Design

AVERAGE SALARY: $82,633

BIOMEDICAL ENGINEER
- Develop devices to enhance capabilities
- Improve the quality of life for individuals with impairments
- Prevent athlete injuries
- Enhance performance

MAJOR IN:
Biomedical Engineering
Biotechnology
Engineering Technology
Molecular Biology
Pharmaceutical Sciences

AVERAGE SALARY: $85,860

CHEMICAL ENGINEER
- Solve problems with the use of chemicals
- Conduct research in the involvement chemicals in products
- Design processes and equipment

MAJOR IN:
Chemical Engineering
Biochemistry
Engineering Technology
Forensic Chemistry
Materials Engineering

AVERAGE SALARY: $104,910
**Sports Statistician**
- Develop mathematical programs and models to predict outcomes
- Recommend changes to increase team success

**MAJOR IN:**
- Mathematics
- Statistical Analysis
- Economics
- Computer Science

**AVERAGE SALARY:** $80,500

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**Sports Economist**
- Research and solve economic problems
- Conduct surveys and collect data
- Analyze data using mathematical models, statistical techniques, and software

**MAJOR IN:**
- Economics

**AVERAGE SALARY:** $100,270

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**Market Research Analyst**
- Study current economic market conditions
- Help sports organizations become aware of potential sales for their products

**MAJOR IN:**
- Market Research
- Statistics
- Mathematics
- Computer Science

**AVERAGE SALARY:** $88,350

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**Operations Research Analyst**
- Use techniques like optimization, data mining, statistical analysis and mathematical modeling
- Develop solutions for organizations to operate more efficiently and cost-effectively

**MAJOR IN:**
- Mathematics
- Operations Research
- Statistics
- Computer Science
- Management Science

**AVERAGE SALARY:** $81,390

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HEALTH IN SPORTS

SPORTS DIETITIAN
- Individual and team nutrition counseling
- Educate to enhance performance
- Menu development plans
- Analyze outcomes of nutritional services

MAJOR IN:
Sports Nutrition
Nutrition
Kinesiology
Food Science
Dietetics

AVERAGE SALARY: $42,261

PHYSICAL THERAPIST
- Rehabilitate injured athletes
- Diagnose problems
- Evaluate patient progress
- Develop treatment plans

MAJOR IN:
Kinesiology
Biological Science
Health Sciences
Athletic Training
Exercise Physiology

AVERAGE SALARY: $82,390

PERSONAL TRAINER
- Help create a healthier lifestyles
- Educate about health and fitness
- Achieve clients' personal fitness goals

MAJOR IN:
Exercise Science
Personal Training
Sports Medicine
Fitness and Health Management
Exercise Physiology

AVERAGE SALARY: $60,136

CHIROPRACTOR
- Improve athletic performance
- Improve range of motion and flexibility
- Prevent injuries
- Adjust patient spinal column
- Advise patients on health and lifestyle

MAJOR IN:
Chiropractic
Human biology
Kinesiology
Exercise Science

AVERAGE SALARY: $68,640

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HEALTH IN SPORTS

ORTHOPEDIC SURGEON
- Prevention, diagnosis, and treatment of musculoskeletal disorders and athlete injuries

MAJOR IN:
- Biology
- Pre-medicine
- Human Physiology
- Health Sciences
- Chemistry

AVERAGE SALARY: $477,260

PHYSIATRIST
- Treatment of function and to treat a variety of disorders
- Help athletes recover from a previous injury and surgery.

MAJOR IN:
- Physical Therapists
- Occupational Therapists
- Physician Extenders

AVERAGE SALARY: $230,600

PODIATRIST
- Work with lower body extremities involving feet, ankles, and lower legs
- Diagnose and treat which can lead to surgery

MAJOR IN:
- Anatomy
- Physiology
- Pharmacology
- Pathology

AVERAGE SALARY: $201,550

MENTAL HEALTH CLINICIAN
- Provide counseling services
- Help athletes over-come fear of performing
- Help with anxieties in life

MAJOR IN:
- Counseling
- Psychology
- Social Work
- Social Science
- Sports Psychology

AVERAGE SALARY: $61,800