Publications

2019

Infographic: STEM and Medical Careers Related to Sports

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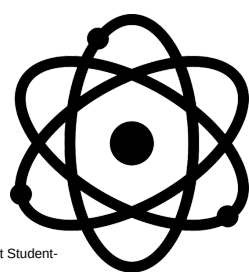
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SCIENCE IN SPORTS

SPORTS SCIENTIST

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

www.sportsengineering.org

MAJOR IN:
Excercise Science
Kinesiology
Exercise Physiology
Biomechanics
Movement Science

AVERAGE SALARY: $59,797

MATERIALS SCIENTIST

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

www.owlguru.com

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

AVERAGE SALARY: $73,954

SPORT PSYCHOLOGIST

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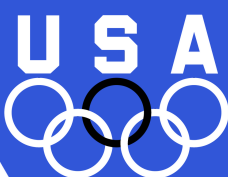- **Help with pressures and stresses of competing**

www.apa.org

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**

www.discoverdatascience.org

MAJOR IN:
Mathematics
Statistics
Computer Science
Management
Information Systems

AVERAGE SALARY: $72,000

DESIGNED BY: MELANIE CANFIELD ENGINEERING STUDENT ATHLETE, CANFIEM1@MY.ERAU.EDU
SUPERVISED BY: DR. LEROY LONG, ENGINEERING PROFESSOR, LONGL2@ERAU.EDU

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**

WWW.dayofstem.org

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

AVERAGE SALARY: $77,798

VIDEO GAME DESIGNER

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

www.yourfreecareertest.com

MAJOR IN:
Game Design and Development
Computer Science
Software Engineering
Artifical Intelligence
Design and Development Analysis

AVERAGE SALARY: $62,260

ENGINEERING TECHNICIAN

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

www.careercornerstone.org

MAJOR IN:
Engineering Technology

AVERAGE SALARY: $47,916

BIOLOGICAL TECHNICIAN

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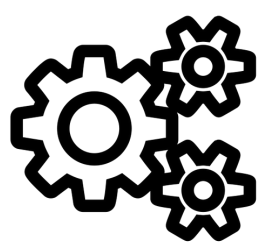- **Develop computer software**

www.northeastern.edu

MAJOR IN:
Biological Technology
Biology
Science
Life Sciences

AVERAGE SALARY: $51,770

ENGINEERING IN SPORTS

SPORTS ENGINEER

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

www.sportsengineering.org

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**

WWW.STUDYLINK.COM

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**

www.bachelorsportal.com

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**
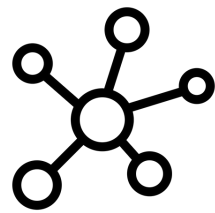- **Design processes and equipment**

www.ichemeblog.org

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

AVERAGE SALARY: $104,910

MATHMATICS IN SPORTS

SPORTS STATISTICIAN

- **Develop mathematical programs and models to predict outcomes**
- **Recommend changes to increase team success**

www.careerigniter.com

MAJOR IN:
Mathematics
Statistical Analysis
Economics
Computer Science

AVERAGE SALARY: $80,500

SPORTS ECONOMIST

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

www.collegegrad.com

MAJOR IN:
Economics

AVERAGE SALARY: $100,270

MARKET RESEARCH ANALYST

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

www.sports-management-degrees.com

MAJOR IN:
Market Research
Statistics
Mathematics
Computer Science

AVERAGE SALARY: $88,350

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**

WWW.money.usnews.com

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**

www.scandpg.org

MAJOR IN:
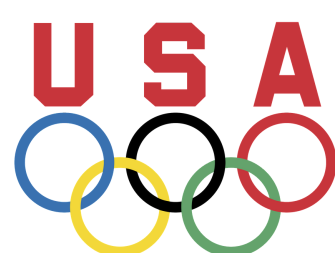Sports Nutrition
Nutrition
Kinesiology
Food Science
Dietetics

NCAA®

NBA **USA**

AVERAGE SALARY: **$42,261**

PHYSICAL THERAPIST

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

www.landyourlife.com

MAJOR IN:
Kinesiology
Biology
Health Sciences
Athletic Training
Exercise Physiology

USA **NFL**

MAJOR LEAGUE BASEBALL

AVERAGE SALARY: **$82,390**

PERSONAL TRAINER

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

personaltraineredu.org

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

NHL

NCAA® **NBA**

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**

www.truity.com

MAJOR IN:
Chiropractic
Human biology
Kinesiology
Exercise Science

PGA TOUR®

NFL

MAJOR LEAGUE BASEBALL

AVERAGE SALARY: **$68,640**
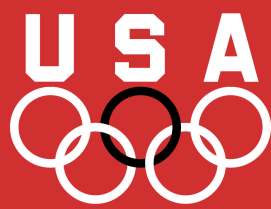
HEALTH IN SPORTS

ORTHOPEDIC SURGEON

- **Prevention, diagnosis, and treatment of musculoskeletal disorders and athlete injuries**

www.degreequery.com

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.**

www.aapmr.org

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**

www.truity.com

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**

www.brighter-beginnings.org

MAJOR IN:
Counseling
Psychology
Social Work
Social Science
Sports Psychology

AVERAGE SALARY: $61,800

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