Health/Exercise Science is a program of study that provides opportunities for students to learn how individuals can influence their own state of wellness, the response and adaptation of the human body to physical activity and sports participation, and how to help others achieve a higher state of wellness. Career paths within this area of study include, but are not limited to: strength and conditioning, physical therapy, athletic training, health and fitness promotion, exercise physiology, rehabilitation counseling, sports nutrition, and personal training. The general emphasis in all of these careers is the link between science, sport, fitness, and allied health sciences. The program is particularly designed to emphasize strength and conditioning program planning and prescription with an emphasis on anaerobic training methods for those interested in pursuing the Certified Strength and Conditioning Specialist (CSCS) credential offered by the National Strength and Conditioning Association (NSCA). This program area has been structured to enable the students to design an academic curriculum that best reflects his/her individual interests as well as general prerequisites for graduate or professional programs. More specifically, pathways are outlined to provide a coordinating matrix for required and recommended courses in which students should enroll. Each student entering this program must complete the University of Hawaii’s general education requirements as well as any program requirements for the College of Education. Graduation requirements for the BS program include a minimum 2.5 GPA and completion of all general education requirements not included in the HES core. Students interested in pursuing the Health & Exercise Science degree are strongly recommended to see a KRS advisor as early as possible and on at least an annual basis.

**SERVICE-LEARNING MODEL**

The BS program is based on a Service-Learning model. Service-Learning is a teaching/learning method that connects meaningful community service with academic learning, personal growth, and civic responsibility. In service-learning, students participate in organized service activity that meets identified community needs and reflect on the service activity to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility [Bringle & Hatcher, 1995].

There are seven elements of high quality Service learning [taken from: Callahan, Davis, Dunlap, Fuller, and Mercer, *Service Learning as an Effective Strategy for Meeting NCATE Standards in Professional Education Programs*, AACTE Annual Meeting, New Orleans, LA, 2008]:

<table>
<thead>
<tr>
<th>ELEMENTS</th>
<th>DESCRIPTORS</th>
</tr>
</thead>
</table>
| 1. Integrated Learning | • Project clearly articulates knowledge, skill, or value goals that arise from course objectives and broader classroom, departmental, and university goals.  
  • The service informs the academic learning content, and the academic learning content informs the service.  
  • Civic skills learned outside the classroom are integrated back into classroom learning. |
| 2. Student Voice [Students participate in] | • Choosing and planning the service project.  
  • Planning and implementing the reflection session, evaluation, and celebration.  
  • Taking on roles and tasks that are appropriate to their undergraduate or graduate level course expectations. |
| 3. High Quality Service | • The service responds to an actual community need that is recognized by the community.  
  • The service is age-appropriate and well organized.  
  • The service is designed to achieve significant benefits for students and community. |
| 4. Civic Responsibility | • The service learning project promotes students’ responsibility to care for others and to contribute to the community.  
• By participating students understand how they can impact their community. |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5. Collaboration        | • Project is collaboration among as many partners as is feasible: students, faculty, community-based organization staff, administrators, and recipients of service.  
• All partners benefit from the project and contribute to its planning. |
| 6. Reflection           | • Reflection established the connections between the students’ service experiences and the academic curriculum.  
• Reflection occurs before, during, and after the service-learning project. |
| 7. Evaluation           | • All partners, especially students are involved in evaluating the Service-Learning project.  
• The evaluation seeks to measure progress toward the learning and service goals of the project. |

Student learner outcomes [SLO] and assessment outcomes are also demonstrated that highlight competencies for which students should achieve at the end of their program of study. Based on the model, the following Student Learner Outcomes [SLO] are:

1. Students will demonstrate knowledge of anatomical, physiological, biomechanical, and psychological principles of how the body moves in relation to space, time, and distance.
2. Students will demonstrate knowledge in the application of movement principles and concepts related to movement.
3. Students will demonstrate the ability to coordinate, plan, manage, and facilitate exercise prescription and information.
4. Students will demonstrate application of programming for healthy lifestyles.
5. Students will demonstrate civic responsibility through a service learning project [capstone experience].
6. Students will demonstrate pro-social skills and professional dispositions in human interaction.

For more Information, please contact:

University of Hawai‘i at Mānoa  
College of Education  
Department of Kinesiology and Rehabilitation Science  
1337 Lower Campus Road (PE/A 231)  
Honolulu, Hawaii 96822

(808) 956-7606 (Office) ☑ (808) 956-7976 (Fax) ☑  
Email: DeptKRS@hawaii.edu  
Website: [https://coe.hawaii.edu/academics/kinesiology-rehabilitation-science/bs-program](https://coe.hawaii.edu/academics/kinesiology-rehabilitation-science/bs-program)
BS in KRS: Specialization in Health & Exercise Science (HES)

NAME: ____________________  KRS ADVISING DATE(S): ____________________

SEMESTER ADMITTED INTO COE: ________________  OSAS ADVISOR CONSULTED? YES  NO  Term: _______

I. GENERAL UNIVERSITY REQUIREMENTS (Minimum to Graduate = 120 credits)
   Must meet with an advisor from the Office of Student Academic Services at the College of Education for General Education and Focus Requirements. Note: Students completing KRS 415 prior to Fall semester, 2012 or receiving transfer credit for KRS 415 must provide documentation of completion of 40 hours of work or volunteer HES related experience to KRS advisor prior to graduation.

II. ACADEMIC MAJOR AND RELATED COURSES (Minimum Grade = C minus [C-])

<table>
<thead>
<tr>
<th>HES Core Requirements</th>
<th>Credits</th>
<th>Semesters Offered</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTEC 112 Technology Resources for Learning OR ICS 101 (BS) Tools for the Information Age + Lab (online)</td>
<td>3.0 OR 4.0</td>
<td>F/Sp/SS</td>
<td></td>
</tr>
<tr>
<td># FSHN 185 The Science of Human Nutrition (DB)</td>
<td>3.0</td>
<td>F/Sp/SS</td>
<td>Placement Exam for 151/L or higher (Math Dept.)</td>
</tr>
<tr>
<td># PHYS 100/L or 151/L (highly recommended) or 170/L, (DP &amp;DY), Survey, College or General Physics + Lab</td>
<td>4.0</td>
<td>F/Sp/SS</td>
<td>Placement Exam for 161/L or higher (Chem Dept.)</td>
</tr>
<tr>
<td># CHEM 161 General Chemistry I (DP) + Lab (DY)</td>
<td>4.0</td>
<td>F/Sp/SS</td>
<td></td>
</tr>
<tr>
<td>KRS 152 Weight Training</td>
<td>1.0</td>
<td>F/Sp/SS</td>
<td>KRS 152</td>
</tr>
<tr>
<td>KRS 153 Olympic and Power Lifting</td>
<td>1.0</td>
<td>F/Sp</td>
<td></td>
</tr>
<tr>
<td># KRS 113 Human Physiology &amp; Anatomy (DB) OR PHYL 103 Human Physiology &amp; Anatomy (DB) OR PHYL 141(DB), 141L(DY), &amp; 142(DB), 142L(DY)</td>
<td>5.0</td>
<td>SP</td>
<td></td>
</tr>
<tr>
<td>KRS 203 Introduction to Kinesiology</td>
<td>3.0</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>KRS 305 Intro to Sports Medicine</td>
<td>3.0</td>
<td>F/Sp/SS</td>
<td></td>
</tr>
<tr>
<td>KRS 332 Emergency Care &amp; First Aid (concussion)</td>
<td>3.0</td>
<td>F/Sp/SS</td>
<td></td>
</tr>
<tr>
<td>KRS 353 Structural Kinesiology</td>
<td>3.0</td>
<td>F/Sp/SS</td>
<td>KRS 113 or Phyl 103 or Phyl 141/L &amp; 142/L</td>
</tr>
<tr>
<td>KRS 354 Exercise &amp; Sport Physiology + Lab (W)</td>
<td>5.0</td>
<td>F/Sp/SS</td>
<td>KRS 113 or Phyl 103 or Phyl 142/L</td>
</tr>
<tr>
<td>KRS 395 Personal Health &amp; Wellness (E)</td>
<td>3.0</td>
<td>F/Sp/SS</td>
<td></td>
</tr>
<tr>
<td>*KRS 415 Prevent/Care of Athletic Injuries (Requires documented 40 hours of work or volunteer HES related experience during registered semester)</td>
<td>3.0</td>
<td>F/Sp/SS</td>
<td>KRS 113 or Phyl 103 or Phyl 141/L &amp; 142/L</td>
</tr>
<tr>
<td>KRS 419 Administration in Athletic Training, Exercise Science, Allied Health</td>
<td>3.0</td>
<td>F/SS</td>
<td>KRS Major</td>
</tr>
<tr>
<td>KRS 420 Lower Extremity Assessment</td>
<td>3.0</td>
<td>F/SS</td>
<td>KRS 353 &amp; KRS 415</td>
</tr>
<tr>
<td>KRS 421 Upper Extremity Assessment</td>
<td>3.0</td>
<td>Sp/SS</td>
<td>KRS 353 &amp; KRS 415</td>
</tr>
<tr>
<td>*KRS 443 Diversity &amp; Disability in Physical Activity (O) (Requires participation in motor clinic)</td>
<td>4.0</td>
<td>F/Sp</td>
<td></td>
</tr>
<tr>
<td>KRS 463 Sport Biomechanics</td>
<td>3.0</td>
<td>F/Sp/SS</td>
<td>KRS 353 &amp; Phys 100/L or Phys 151/L or Phys 171/L</td>
</tr>
<tr>
<td>KRS 474: Intro to Statistics in Kinesiology OR EDEP 429 Introductory Statistics</td>
<td>3.0</td>
<td>F/Sp</td>
<td></td>
</tr>
<tr>
<td>KRS 480 Nutrition in Exercise &amp; Sport</td>
<td>3.0</td>
<td>Sp/SS</td>
<td>KRS 113 or Phys 103 or Phys 141/L &amp; 142/L with FSHN 185</td>
</tr>
<tr>
<td>*KRS 488 Practicum (W) (160 hrs. to start in the registered semester)</td>
<td>4.0</td>
<td>F/Sp/SS</td>
<td>KRS 152, KRS 353, KRS 354/L, &amp; KRS 463</td>
</tr>
<tr>
<td>KRS 489 Program Design for Strength Training</td>
<td>3.0</td>
<td>F/Sp/SS</td>
<td>KRS 152, KRS 153, KRS 353, KRS 354/L, &amp; KRS 463</td>
</tr>
</tbody>
</table>

Total Core Credits 73 - 77

* Meets Service Learning component
• Notations fulfill University Focus Requirements: Ethical (E), Oral (O), & Writing (W)
# Course can be used for both General Education and HES Core (16 – 19 credits)
Elective Coursework: Minimum 18 credits REQUIRED for graduation
(Minimum Grade = C minus [C-])

Students are required to complete EITHER: 1) Six (6) credits of Elective Activity Classes AND twelve (12) credits of Career Pathways coursework OR 2) Three (3) credits of Elective Activity Classes and fifteen (15) credits of Career Pathways coursework.

<table>
<thead>
<tr>
<th>Elective Activity Classes [Minimum 3 or 6 credits]</th>
<th>Credits</th>
<th>Semesters Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>KRS 102 Aerobic Fitness: Beginning</td>
<td>1.0</td>
<td>F/Sp/SS</td>
</tr>
<tr>
<td>KRS 103 Swimming: Beginning</td>
<td>1.0</td>
<td>F/Sp</td>
</tr>
<tr>
<td>KRS 104 Swimming: Intermediate</td>
<td>1.0</td>
<td>F/Sp</td>
</tr>
<tr>
<td>KRS 105 Swimming: Advanced:</td>
<td>1.0</td>
<td>F/Sp</td>
</tr>
<tr>
<td>KRS 135 Volleyball: Beginning</td>
<td>1.0</td>
<td>F/Sp</td>
</tr>
<tr>
<td>KRS 137 Basketball</td>
<td>1.0</td>
<td>F/Sp</td>
</tr>
<tr>
<td>KRS 151 Adapted and Prescribed Exercise</td>
<td>1.0</td>
<td>F/Sp</td>
</tr>
<tr>
<td>KRS 160 Judo</td>
<td>1.0</td>
<td>F/Sp</td>
</tr>
<tr>
<td>KRS 161 Aikido</td>
<td>1.0</td>
<td>F/Sp</td>
</tr>
<tr>
<td>KRS 163 Tai Chi Chuan</td>
<td>1.0</td>
<td>SS</td>
</tr>
<tr>
<td>KRS 164 Karate: Beginning</td>
<td>1.0</td>
<td>F/Sp</td>
</tr>
<tr>
<td>KRS 170 Yoga: Beginning</td>
<td>1.0</td>
<td>F/Sp/SS</td>
</tr>
<tr>
<td>KRS 171 Yoga: Intermediate</td>
<td>1.0</td>
<td>F/SP</td>
</tr>
<tr>
<td>KRS 181 Sport Proficiency I: Invasion</td>
<td>3.0</td>
<td>F</td>
</tr>
<tr>
<td>KRS 182 Sport Proficiency II: Net, Field, and Target</td>
<td>3.0</td>
<td>Sp</td>
</tr>
</tbody>
</table>
RECOMMENDED CAREER PATHWAY CREDITS

Athletic Training*  PATHWAY COURSES
PHRM 203: General Pharmacology, offered at KCC & LCC
HLTH 110: Medical Terminology (2), offered at KCC & LCC
PHYL 301/L: Human Anatomy & Physiology & Lab (5)
PHYL 302/L: Human Anatomy & Physiology & Lab (5)
PSY 100: Survey of Psychology
PSY 230: Intro to Psychobiology
PSY 240: Developmental Psychology
Biol 171 + L: Intro to Biology I (4)
Bio 172 + L: Intro to Biology II (4)
Phys 152 + L: Physics II (4)
CHEM 162 + L: General Chemistry II (4)

Physical Therapy* / Occupational Therapy*
PHYL 301/L: Human Anatomy & Physiology & Lab (5)
PHYL 302/L: Human Anatomy & Physiology & Lab (5)
CHEM 162 + L: General Chemistry II (4)
PHYS 152 + L: Physics II (4)
Biol 171 + L & 172/L: Intro to Biology I & II (8)
MICR 130: General Microbiology
MICR 140/L: General Microbiology Lab (2)
PSY 230: Intro to Psychobiology
PSY 240: Developmental Psychology
PSY 371: Abnormal Psychology
BIOC 241: Fundamentals of Biochemistry
BIOC 275/L: Cell & Molecular Biology (4)
BIOC 276/L: Cell & Molecular Biology (4)

Sport Nutrition* PATHWAY COURSES
PHYL 301/L: Human Anatomy & Physiology & Lab (5)
PHYL 302/L: Human Anatomy & Physiology & Lab (5)
CHEM 162 + L: General Chemistry II (4)
CHEM 162 + L: General Chemistry II (4)
CHEM 272/L: Organic Chemistry I (5)
MICR 130: General Microbiology
MICR 140/L: General Microbiology Lab (2)
MICR 130: General Microbiology

Sport Psychology* / Rehabilitation Counseling*
KRS 210: Leisure Educ & Life Skills Dev
KRS 384: Drugs & Society
KRS 434: Coaching Athletics (W)
KRS 484: Promoting Drug-Free Lifestyle
FAMR 333: Adolescence and Young Adulthood
EDEP 360: Dynamics of Student Leadership (W)
*PSY 220: Intro to Behavioral Psychology @ HCC
*PSY 230: Intro to Psychobiology
*PSY 240: Developmental Psychology
*PSY 341: Social Development of Children

Physician Assistant
MICR 130: General Microbiology
CHEM 162 + L: General Chemistry II (4)
CHEM 272/L: Organic Chemistry I & Lab (5)
BIOC 241: Fundamentals of Biochemistry
PHYL 301/L: Human Anatomy & Physiology & Lab (5)
Biol 171/L Introduction to Biology I & Lab (4)
Biol 275/L Cell & Molecular Biology (4)
Biol 375/L Genetics & Lab (5)
PSY 240: Developmental Psychology
PSY 371: Abnormal Psychology
PHRM 203 & HLTH 110 (2), offered at KCC & LCC

Exercise Specialist, Strength & Conditioning, Personal Training and Health Fitness Instructor
KRS 384: Promoting Drug-Free Lifestyle
KRS 484: Promoting Drug-Free Lifestyle
KRS 470: Fitness for Life (O)
KRS 484: Promoting Drug-Free Lifestyle
KRS 484: Promoting Drug-Free Lifestyle
KRS 484: Promoting Drug-Free Lifestyle
KRS 484: Promoting Drug-Free Lifestyle

Health Promotion
PH 201: Introduction to Public Health
PH 201: Introduction to Public Health
PH 201: Introduction to Public Health

Education Related
EDEP 201 Intro to Teaching as a Career (W)
EDEP 310 Education in American Society
EDEP 310 Education in American Society
EDEP 360/ITE 360 Intro to Multicultural Education
EDEP 360 Dynamics of Student Leadership (W)
KRS 270: Introduction to Physical Education
KRS 484: Promoting Drug-Free Lifestyle
KRS 484: Promoting Drug-Free Lifestyle
KRS 484: Promoting Drug-Free Lifestyle
KRS 484: Promoting Drug-Free Lifestyle

NOTE
(a) Program prepares student for advanced studies [Graduate school]
(b) Transferred courses or substitutions are acceptable with written permission from KRS advisor
(c) The following notations after courses also fulfill University Focus Requirements: Ethical (E), Oral (O), & Writing (W)

* Courses recommended for Rehabilitation Counseling graduate program

Effective Fall 2015
Revised 6_2019
KRS Graduation Checklist

1. Must be a KRS major (HES or HPE) at least 2 semesters prior to graduation:
   - Apply via Makalei, https://makalei.coe.hawaii.edu/student

2. Deadlines to file for graduation are:
   - February 15th for Fall Graduation
   - September 15th for Spring and Summer graduation

3. Confirm KRS HES CORE and KRS ELECTIVE requirements:
   - Meet with KRS department advisor, PE/A231, houl@hawaii.edu
   - Graduation Memorandum is required for any substituted or waived courses

4. Begin your graduation application by logging into, https://makalei.coe.hawaii.edu/student

5. Confirm graduation requirements with an Academic Advisor at the Office of Student Academic Services (OSAS):
   - Schedule an appointment to meet with the OSAS Academic Advisor, (808) 956-7915 or http://coeosas.appointy.com/

6. Sign up to participate in Commencement:
   - https://manoa.hawaii.edu/commencement/