

North Carolina State University
Department of Health and Exercise Studies

Course: HESF 111 Indoor Group Cycling
Instructor: Joy Kagendo,
Office: Carmichael Gym 1309
Office Hrs: Mo/We 10-35-11:35 or by appointment
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Required Texts: *North Carolina State University Physical Education Department; Focus on Fitness*; 7th. Edition 2018; Macmillan Learning New \$27.95
Course website: <http://moodle.wolfware.ncsu.edu>

Course Description: This course is designed to teach and apply the principles of lifetime physical fitness, utilizing the five major components of cardio-respiratory endurance, muscular strength, muscular endurance, flexibility and body composition. A variety of health and wellness issues will be addressed. The components of fitness will be met through structured individually paced indoor group cycling classes. Muscular strength activities could take place in or out of the cycling room.

Health Information Statement: Physical activities in this class are considered moderate to vigorous and are considered limited contact. The NC State Department of Health and Exercise Studies supports the development and improvement of physical health, while doing so safely. If you have a known medical condition that could be adversely affected by participating in the typical activities of this class, please contact your usual physician for recommendations about how to participate safely or whether it is more appropriate to choose a different HES course. If your physician has provided you with recommendations to modify participation in this class, please share those recommendations with the instructor within the first week of class, if possible. If you are not certain whether you have a medical condition that puts you at risk for participation in this class or have a medical condition and cannot access your usual physician in a timely manner for recommendations for safe participation, consider making an appointment at Student Health to discuss your concerns (appointment number is 919.515.7107 or book on-line at healthweb.ncsu.edu).

Course Objectives

By the end of the semester, the student will be able to:

- ◆ Describe the benefits of indoor group cycling.
- ◆ Describe and implement components of physical fitness in their daily learning
- ◆ Learn about the benefits of cardiovascular endurance, flexibility, muscular endurance, muscular strength
- ◆ Implement a personal fitness program based on their knowledge of fitness guidelines.
- ◆ Maintain and/or improve endurance, strength & flexibility fitness levels.
- ◆ Identify and describe the relationship between, nutrition, stress, health and fitness.

Evaluation

Course evaluation will be based on the following components:

Written Exams.....	40%
20 Minute Cycle Power Test.....	30%
Planks & Hands Up Push-up tests	20%
Class Ride assignment	10%

Total 100%

****Moodle will be used for this class <http://moodle.wolfware.ncsu.edu>. It is important that you log in for exam and assignments throughout the semester.

Grading Scale:

Each student has the option of taking the class for a letter grade (+/-), credit only, or audit.

97 - 100 = A+	93 - 96.99 = A	90 - 92.99 = A-
87 - 89.99 = B+	83 - 86.99 = B	80 - 82.99 = B-
77 - 79.99 = C+	73 - 76.99 = C	70 - 72.99 = C-
67 - 69.99 = D+	63 - 66.99 = D	60 - 62.99 = D-
0 - 59.99 = F		

Requirements for Credit Only: In order to receive a grade of S, students are required to take all exams and quizzes, complete all assignments, and earn a grade of C- or better. Conversion from letter grading to credit only (S/U) grading is subject to university deadlines. Refer to the Registration and Records calendar for deadlines related to grading. For more details refer to: http://www.ncsu.edu/policies/academic_affairs/courses_undergrad/REG02.20.15.php

Requirements for Audit: Students must attend all classes except written exams and will be allowed four absences before NR will be recorded as a final grade. http://www.ncsu.edu/policies/academic_affairs/pols_regs/REG205.00.5.php

Incomplete Grades:

http://www.ncsu.edu/policies/academic_affairs/grades_undergrad/REG02.50.3.php

incomplete grades will be assigned only if unavoidable and unforeseen events occur, such as a medical emergency, preventing the student from completing a course requirement before the final grades are submitted. Incompletes must be made up before the end of the next regular semester in which the student is enrolled and in no case may be made up more than 12 months after the end of the semester in which the IN is awarded, unless the teacher or department offering the course is not able to provide the student with an opportunity to make up incomplete work, in which case the period can be extended. Make up work is to be limited to accomplishing the work not completed.

Late Assignments: Students are expected to complete assignments by the deadlines. No points will be given for assignments that are handed in beyond the deadline.

ATTENDANCE

Students are expected to attend all classes and to arrive and leave at the scheduled times. The instructor will adhere to the university attendance policy. In case of an excused absence, the student will be allowed to make up any written work missed within one week of returning to class. Students are responsible for submitting such work and for scheduling make-up exams with the instructor.

See http://www.ncsu.edu/policies/academic_affairs/courses_undergrad/REG02.20.3.php for more information.

1. Students are expected to attend classes.
2. **For students registering late, all missed classes count as absences.**
3. If a student has an excused absence (Illness, Family Emergency, Court, school excused event) a written verification from the appropriate official is required within **one week** of the absence, however, the absence will remain. Please DO NOT call the Physical Education office to let the instructor know you are sick.
4. **All WORK missed as a result of an excused absence must be made up as soon as possible following the absence. An absence and ride participation points cannot be made up.**
5. **Two tardiness = one absence.**
6. The inability to participate in class will result in an absence.
7. The student is responsible for all assignments and materials covered during an absence.
8. Class time is 40 minutes.

Absences	Points
0	+3
1	0
2	0
3	0
4	0
5	-12
6	F

Electronic Hosted Course Components: Students may be required to disclose personally identifiable information to other students in the course, via electronic tools like email or web postings, where relevant to the course. Examples include online discussions of class topics, and posting of student coursework. All students are expected to respect the privacy of each other by not sharing or using such information outside the course.

Dress Code: Students are required to wear NC State HES T-shirts and red, black, grey or dark blue bottoms at all time during class rides and other PE activities. You may wear spandex underneath your shorts. If you have bike shorts, you may wear those to class.

EMAILING INSTRUCTOR

In order to receive a response from your instructor, your email should be structured as follows:

1. Properly address your instructor.
2. Identify who you are, the class you are in and the purpose of your email.
3. Please be specific and use complete sentences in your comments/questions.
4. Any emails which are not sent appropriately as outlined above will not be responded to and will be deleted.

CLASS REQUIREMENTS

1. For dress code, students may wear NCSU HES t-shirt or a plain fitness shirt (with few writings and designs). Bike shorts are recommended but not necessary. Comfortable shorts or other appropriate leggings are okay. Bike shoes or other appropriate shoes (shoes with good toe support – examples include a court shoe) are required for this course. No baggy or lose shorts will be allowed.
2. The student will be marked absent for improper attire and shoes due to the inability to participate in class.
3. Each student is responsible for the material presented in class, as well as that contained in the textbook. Please do not email instructor requesting information presented to class during your absence.
4. Students must arrive for warming-up. You may begin your warm up before class if you arrive early and studio is open. You must cool down and stretch after each ride/activity.
5. Profanity will **NOT** be tolerated.
6. Leave all jewelry and valuables at home or in the locker.
7. NO chewing gum.
8. It is recommended that the student bring a full water bottle for class.

General Information:

1. **Academic Integrity:** For all written assignments, students will be expected to adhere to the **University Honor Code:** "I have neither given nor received unauthorized aid on this test or assignment." It is the understanding and expectation of the instructor that the student's signature on any test or assignment means that the student neither gave nor received unauthorized aid. Consult the university website:
http://www.ncsu.edu/policies/student_services/student_discipline/POL11.35.1.php
2. **Students with Disabilities:** Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services Office at 1900 Student Health Campus Box 7509, 515-7653.
See <http://www.ncsu.edu/dso/>
For more information on NC State's policy on working with students with disabilities, please see the **Academic Accommodations for Students with Disabilities Regulation** (http://www.ncsu.edu/policies/academic_affairs/courses_undergrad/REG02.20.1.php).
3. **Anti-Discrimination Statement:** NC State University provides equality of opportunity in education and employment for all students and employees. Accordingly, NC State affirms its commitment to maintain a work environment for all employees and an academic environment for all students that is free from all forms of discrimination. Discrimination based on race, color, religion, sex, creed, national origin, age, disability, veteran status or sexual orientation is a violation of state and federal law and/or NC State University policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on color, religion, sex, creed, national origin, age, disability, veteran status or sexual orientation is also a violation of state and federal law and/or NC State University policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at http://www.ncsu.edu/policies/campus_environ or http://www.ncsu.edu/equal_op. Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Office for Equal Opportunity (OEO) at 515-3148.
4. Due to the nature of the activities in this class, it may be necessary for safety reasons to have some amount of physical contact occur to assist in acquiring the proper form/technique. The students should inform the instructor if they do not want any physical contact to assist in acquiring the proper form/technique.
5. Every fitness activity has certain inherent risks, and regardless of precautions taken it is impossible to ensure total safety. Adhere to all safety guidelines to reduce your risk of injury.
6. The use of illegal drugs, tobacco products, or alcoholic beverages is prohibited.
7. It may be appropriate to inform the instructor within the first week of class if you have any medical issues that would affect your participation throughout the semester in this course.
8. Pets and visitors are not allowed during class periods. Firearms, weapons, and/or fireworks are prohibited from class.
9. Please **turn off cell phones** during class.

HESF 111 Fall 2019 Semester Tentative Schedule

Week	TuTh	ACTIVITY	READING
1	Aug 22	Introduction/Orientation/Goal setting/Fill out fitness cards, check body weight (meet in cycling studio)	Chapters 1-7
2	Aug 27	Lecture	
	Aug 29	Intro to riding (RPM, Watts)	Riding zones
3	Sept 3	Pre-test-20-minute Cycle Power Test	
	Sept 5	Pre-test- push-ups and planks	Body alignment
4	Sept 10	Ride	Riding techniques
	Sept 12	Lecture/Muscle Anatomy	Muscular Anatomy
5	Sept 17	Power ride	
	Sept 19	Strength Training	Muscular anatomy
6	Sept 24	Endurance ride	
	Sept 26	Lecture: Nutrition, cardiovascular wellness and stress management	Log nutrition for a week/visit Ratemyplate.gov
7	Oct 1	Zone riding	
	Oct 3	MID-TERM EXAM	Chapters 6-8
8	Oct 8	Ride	
	Oct 10	FALL BREAK	
9	Oct 15	Ride	
	Oct 17	Strength Training	
10	Oct 22	Ride	
	Oct 24	Interval	Read about Tabata
11	Oct 29	Ride	HIIT Ride
	Oct 31	Weight RM	Supersets
12	Nov 5	Circuit workout	
	Nov 7	Ride	
13	Nov 12	Lecture: Sports-related injuries	
	Nov 14	Tabata Ride	
14	Nov 19	Ride and lift	
	Nov 21	Long ride	Work on endurance and breathing
16	Nov 26	Cycle Power Test/Push ups	Ride assignment due on moodle
	Nov 28	THANKSGIVING HOLIDAY	
16	Dec 3	Final Written Exam	
	Dec 5	Skills Tests/Last day of class	

Bike Set-up and Adjustments

Quick Fit

Step 1: Adjust the seat height so that it is level with the top of your hipbone. Measure this by facing forward and stand next to the bike seat. Estimate the measurement by sight, or lift knee until the thigh is parallel to the floor and adjust seat even with the thigh.

Step 2: Adjust the seat fore/aft position to the middle of the adjustment range. The middle range is the most common correct adjustment for the average rider, and therefore a good place to start.

Step 3: Adjust the handlebars level with the seat, or higher. If you have any back or shoulder pain or tightness, be sure to adjust the handlebars higher than the set to minimize discomfort while riding. This adjustment is based upon comfort only.

Step 4: Double-check the seat height adjustment by sitting on the bike and put your feet in the pedal clips or cages. Make sure to center the ball of your foot over the pedal axle before tightening the cage straps. Look for a slight bend in the knee when the pedal is at the bottom of the revolution.

Step 5: Double-check the handlebar height, making sure you can reach several places on the handlebars comfortably with relaxed elbows and shoulders. Make necessary adjustments.

RPM Ranges

Flats	50	60	70	80	90	100	110
Hills	50	60	70	80	90	100	110
Recovery/Descent	50	60	70	80	90	100	110

The **dark green** is ideal, grey is Occasional and clear is avoid unless when sprinting or riding for time/personal best.

Performance Scales for the 20 Minute Cycling Power Test

Test Description:

The overall goal of the student will be to maximize the average watts produced during the 20minute time period. The student will begin by adjusting the bike settings to ensure the “best fit” during the test. After a short warm-up period, the student must stop pedaling for a period of one minute to allow the cyclometer to reset all values to zero. Once the test begins the student must continue riding for 20 minutes without stopping. Any pause or cessation of pedaling in excess of 59 seconds prior to the completion of the test will result in no credit for the performance. The student may use any standard riding technique including seated or standing positions during the test. The student may adjust the resistance over the course of the ride to maintain the recommended average cadence of 60 to 110 rpm. When the test is completed, the student must stop pedaling, engage the brake by pushing the resistance lever to its highest possible position and remain on the bike until the student’s average wattage (flashing) is recorded. If possible, the student’s body weight should be taken at the time of the test. The student’s power-to-weight ratio should be calculated using the formula below. Performance will be graded using the IGC 20-Minute Cycling Power Test Scale.

$$\text{Power-To-Weight Ratio (PWR)} = \frac{\text{Power (watts)}}{\text{Body Weight (kg)}} \quad \text{or} \quad \frac{2.2 * \text{Power (watts)}}{\text{Body Weight (lbs)}}$$

Females	Points	Males
2.35	30 (100%)	2.69
2.22	29.1	2.55
2.08	28.5	2.40
1.94	27.9	2.26
1.81	27	2.12
1.67	26.1	1.98
1.54	25.5	1.84
1.40	24.6	1.70
1.26	24	1.55
1.13	23.1	1.41
0.99	22.5	1.27
0.86	21.9	1.13
0.72	21 (70%)	0.99

2013 — based on data collected by the Department of Health and Exercise Studies

Muscular Strength and Endurance - Hands-Up Push-Up Test Scale

The student will begin lying prone on the floor with both hands raised. The student will push up off the floor, keeping the back straight so that only their hands and feet make contact with the floor. After the arms are fully extended the student must lower his/her body back to floor until resting completely in the original prone position. This will complete a single repetition. The hands must be raised off the floor before the next repetition can be attempted. The test has a one minute time limit.

Hands-Up Push-Up Test Scale		
Females (Reps)	Grade (10%)	Males (Reps)
31	10	42
30	9.7	41
29	9.4	40
28	9.1	39
27	8.8	38
26	8.5	37
25	8.2	36
24	7.9	35
23	7.6	34
22	7.3	33
21	7	32
20	6.7	31
19	6.4	30
18	6.1	29
17	5.8	28
16	5.5	27
15	5.2	26
14	4.9	25
13	4.6	24
12	4.3	23

Performance Scales for the Plank Test

Test Description: This is a static hold to test total body endurance. The body is supported by the forearms (elbows directly below the shoulders) and toes. The body must be in alignment, with navel to spine and glutes engaged – cervical and lumbar spine in neutral. Hold the position as long as possible, maintaining proper alignment. Record your time.

Points	Percentage	Seconds	Min:Sec
10	100	240	4:00
9.5	95	210	3:30
9.0	90	180	3:00
8.5	85	165	2:45
8.0	80	150	2:30
7.5	75	135	2:15
7.0	70	120	2:00
6.5	65	105	1:45
6.0	60	90	1:30
3.0	55	60	1:00

Source: *Health & Exercise Studies Department; North Carolina State University, 2007.*