RPTA 124: THE SCIENCE OF NATURE ENGAGEMENT AND HUMAN HEALTH & WELLBEING

In Workflow

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Approval Path

1. Tue, 29 Sep 2020 21:29:18 GMT
   Greg Shaw (sac14077): Approved for RPTA Committee Chair
2. Tue, 29 Sep 2020 21:29:44 GMT
   Greg Shaw (sac14077): Approved for RPTA Chair
3. Wed, 07 Oct 2020 04:49:57 GMT
   Heather Thompson (heather.thompson): Rollback to RPTA Chair for HHS College Committee Chair
4. Thu, 08 Oct 2020 20:47:18 GMT
   Greg Shaw (sac14077): Rollback to RPTA Committee Chair for RPTA Chair
5. Thu, 08 Oct 2020 21:03:34 GMT
   Greg Shaw (sac14077): Rollback to Initiator
6. Mon, 12 Oct 2020 20:06:03 GMT
   Greg Shaw (sac14077): Approved for RPTA Committee Chair
7. Mon, 12 Oct 2020 20:06:26 GMT
   Greg Shaw (sac14077): Approved for RPTA Chair
8. Tue, 20 Oct 2020 18:00:19 GMT
   Heather Thompson (heather.thompson): Approved for HHS College Committee Chair
9. Tue, 20 Oct 2020 18:20:55 GMT
   Mary Maguire (maguirem): Approved for HHS Dean

New Course Proposal

Date Submitted: Mon, 12 Oct 2020 18:49:52 GMT

Viewing: RPTA 124 : The Science of Nature Engagement and Human Health & Wellbeing

Last edit: Mon, 12 Oct 2020 18:49:51 GMT

Changes proposed by: Erik Luvaas (210464684)

Contact(s):

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Catalog Title:

The Science of Nature Engagement and Human Health & Wellbeing

Class Schedule Title:

The Science of Nature Engageme

Academic Group: (College)

HHS - Health & Human Services

Academic Organization: (Department)
Recreation, Parks, and Tourism Administration

Will this course be offered through the College of Continuing Education (CCE)?
No

Catalog Year Effective:
Spring 2021 (2021/2022 Catalog)

Subject Area: (prefix)
RPTA - Recreation, Parks, and Tourism Administration

Catalog Number: (course number)
124

Course ID: (For administrative use only.)
TBD

Units:
3

In what term(s) will this course typically be offered?
Fall, Spring, Summer

Does this course require a room for its final exam?
Yes, final exam requires a room

Does this course replace an existing experimental course?
No

This course complies with the credit hour policy:
Yes

Justification for course proposal:
Due to changes in graduation requirements (i.e. the need for more GE B5 options to expand options for majors in Area B) and the life science, quantitative reasoning, and scientific analysis content this course offers, upper division area B5 classification is requested.

The scientific understanding of human-nature relations and the psychophysiological (and other) impacts on human health and wellbeing is in its infancy. Anecdotally it is understood that spending time in nature may provide health and wellbeing benefits. This understanding is foundational to much of the programs, services, and facilities offered by recreation, parks, and tourism professionals. However, empirical investigation of the specific benefits from engaging in nature-based activities has only been present in the research literature for the past two decades. Studies are becoming more rigorous, using different methodologies, and surveying larger and more diverse populations. Advanced understanding of this phenomena and explicit communication and decision-making regarding how to advance human health and wellbeing based on this body of knowledge is still forming. The course will offer all students access to this body of research to inform their own health and wellbeing practices, enhance their knowledge to serve the public within their discipline's scope, and provide a framework of study to unite disciplines across the physical and social sciences with a common language about human-nature relations. The course is intended to enhance the education of students across all disciplines within the College of Health and Human Services, students seeking study in General Education Area B5, or students seeking upper division credit in this topic area.

Course Description: (Not to exceed 80 words and language should conform to catalog copy.)
This course examines contemporary and emerging research evidence on human health and wellbeing impacts from nature engagement. It is anecdotally understood that spending leisure time outdoors is beneficial, but public understanding of the science behind this phenomenon is lacking. Areas of scientific literature covered include relevant scientific theories, validity of evidence-based forms of nature engagement, and mechanistic pathways of benefits. Analyzes the scientific research methodologies utilized globally and impacts on equity issues for different population groups' access to nature-based activities.

Are one or more field trips required with this course?
No

Fee Course?
No

Is this course designated as Service Learning?
No

Does this course require safety training?
No

Does this course require personal protective equipment (PPE)?
No

Does this course have prerequisites?
No

Does this course have corequisites?
No

Graded:
Letter

Approval required for enrollment?
No Approval Required

Course Component(s) and Classification(s):
Lecture

Lecture Classification
CS#02 - Lecture/Discussion (K-factor=1WTU per unit)
Lecture Units
3

Is this a paired course?
No

Is this course crosslisted?
No

Can this course be repeated for credit?
No

Can the course be taken for credit more than once during the same term?
No

Description of the Expected Learning Outcomes: Describe outcomes using the following format: 'Students will be able to: 1), 2), etc.'
By the end of the course students will be able to:
1. Describe the foundational and emerging scientific theories explaining nature engagement benefits to human health and wellbeing. (GE area B5: Objective 1&2)
2. Identify the primary research methodologies (quantitative and qualitative; cross-sectional and epidemiological) used to establish an evidence base for nature engagement as a health and wellbeing strategy. (GE area B5: Objective 1)
3. Critique the assumptions and limitations of the most prevalent research methodologies in the relevant literature. (GE area B5: Objective 1)
4. Describe nature-engagement benefits and their mechanistic pathways (psychological and physiological) that are most cited in the research literature. (GE area B5: Objective 1&2)
5. Examine the personal, public, and ethical considerations associated with utilizing nature-based activities for health and wellbeing. (GE area B5: Objective 2)
6. Outline how nature engagement research may influence different sectors of society including public policy and healthcare strategies. (GE area B5: Objective 2)
7. Analyze geographical, cultural, philosophical, and historical issues affecting contemporary research evidence, populations studied, and equitable access to benefits of currently recommended nature-engagement strategies. (GE area B5: Objective 2&3)

Attach a list of the required/recommended course readings and activities:
The Science of Nature Engagement and Human Health & Wellbeing Syllabus - Reading List.docx

Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above.
Course learning outcomes will be met through a variety of assessments including class participation, quizzes, discussion boards, annotated bibliography, reflective papers and research essays of varying length, and a final exam. The Graded Course Activities table

in the syllabus outlines how each assessment is linked to course learning outcomes and GE B5 learning outcomes. A condensed version of the table is below.

Course Assignments:

Participation in Class Meetings and Canvas Activities (ELO 1-7; AB5LO 1-3)
Quizzes (ELO 2,4,6; AB5LO 1)
5 Journal Entries/Peer Reply (ELO 1,4,5; AB5LO 2,3)
Nature Benefits Annotated Bibliography (ELO 1-4; AB5LO 1)
Nature Engagement Strategy Research Paper (750 words) (ELO 1-7; AB5LO 1,2,3)

Four Position and Response Papers (250 words each=1,000 total):
#1 Ways of Knowing (ELO 1,2,3,7; AB5LO 1-3)
#2 What's the Significance? (ELO 2-7; AB5LO 1,2)
#3 Mind, Body, or What? (ELO 1,2,4; AB5LO 1-3)
#4 Ways of Being (ELO 5,6,7; AB5LO 2,3)
Final Exam (ELO 1-7; 1-3)

Specifically, students will be assessed on their acquired knowledge through: weekly attendance and participation in class lecture, discussion, and hands-on activities with journal reflections linking scientific understanding of the nature engagement phenomena to lived experience; 5 quizzes on areas of the brain and body involved in nature engagement psychophysiological responses, mechanistic pathways of nature-engagement benefits (i.e., Hypothalamic-Pituitary-Adrenal-axis and immune response), and methods of scientific inquiry; annotated bibliography preparing students to write a research paper investigating the scientific literature on a specific topic; and four position papers where students explore a topic related to scientific inquiry to develop their understanding of how empirical study of human-nature relations has been undertaken, areas of limitation, quantitative reasoning, and application of scientific evidence in personal and public decision-making.

For whom is this course being developed?

Majors in the Dept
Minors in the Dept
General Education
Majors of other Depts

Is this course required in a degree program (major, minor, graduate degree, certificate?)

No

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer)?

No

Will there be any departments affected by this proposed course?

No

I/we as the author(s) of this course proposal agree to provide a new or updated accessibility checklist to the Dean's office prior to the semester when this course is taught utilizing the changes proposed here.

I/we agree

University Learning Goals

Undergraduate Learning Goals:

Knowledge of human cultures and the physical and natural world
Integrative learning

Is this course required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?

No

GE Course and GE Goal(s)

Is this a General Education (GE) course or is it being considered for GE?

Yes

In which GE area(s) does this apply?

B5. Further Studies in Physical Science, Life Forms and Quantitative Reasoning (Upper Division Only)

Which GE objective(s) does this course satisfy?

Gain a general understanding of current theory, concepts, knowledge, and scientific methods pertaining to the nature of the physical universe, ecosystems, and life on this planet.

Attach Course Syllabus with Detailed Outline of Weekly Topics:

RPTA 124 The Science of Nature Engagement and Human Health & Wellbeing Syllabus.docx

Syllabi must include: GE area outcomes listed verbatim; catalog description of the course; prerequisites, if any; student learning objectives; assignments; texts; reading lists; materials; grading system; exams and other methods of evaluation.

Will more than one section of this course be offered?

No

General Education Details - Area B5: Further Studies in Physical Science, Life Forms and Quantitative Reasoning

Section 1.

Indicate in written statements how the course meets the following criteria for Category B5. Relate the statements to the course syllabus and outline. Be as succinct as possible.

Course type:

Quantitative Reasoning
Physical Science or Life Forms

For courses in physical science or life forms:

Develops an understanding of the principles underlying and interrelating natural phenomena including the foundations of our knowledge of living systems.

The course guides students through analysis of the research literature on the impacts of nature engagement on human health and wellbeing (ELO 1,2,3). Students will examine the empirical evidence on humans' psychophysiological responses to nature contact through the lens of many disciplines' scientific research (recreation/leisure, psychology, landscape architecture, community planning, epidemiology, forest ecology, etc.) (ELO 4; see Reading List). The course will assess students understanding of the interrelated natural phenomena of human-nature relations, and the requisite human anatomy and physiology affected, through research literature review, synthesis, and reflection assignments and exams. The science exploring our knowledge of the human-nature living system is rapidly developing, and this course stands to address that area of transdisciplinary research.

Introduces students to one or more of the disciplines whose purpose is to acquire knowledge of the physical universe and/or living systems and life forms.

The course will introduce students to the scientific literature from many disciplines that have converged in the last two decades to contribute to the theoretical and empirical understanding of the human-nature relationship and its impact on human health and wellbeing (see Reading List).

Develops an appreciation of the methodologies of science and the limitations of scientific inquiry.

The course will guide students to develop a critical mind for digesting research (mostly quantitative, but also providing a brief qualitative perspective, which often informs the direction of quantitative methodologies) (ELO 2,3). Students will engage in discussion, persuasive writing, and exams regarding the efficacy and limitations of scientific inquiry and how research is interpreted and utilized for individual and public decision making. (Assessments include: quizzes, final exam, annotated bibliography, and research paper).

For courses in quantitative reasoning:

Develops basic mathematical or logical concepts, quantitative reasoning skills, and has general applicability in solving problems.

Students will be expected to digest scientific literature, identify study limitations and statistical vs. clinical significance, and analyze the generalizability of empirical evidence for health and wellbeing decision-making for different populations. Students will be introduced to considerations for methodological rigor including sample size, study design, dependent and independent variables, and generalizability of independent studies (assessments include exams, research paper, and class discussions).

Develops computational skills or competence in the analysis of arguments.

Students will demonstrate their competence in the analysis of arguments through persuasive writing in response to position statements on ways of acquiring knowledge, statistical vs. clinical significance, meaningfulness of research study results, and how research informs individual and public decision making (assessments: position and response papers 1-4 and research paper).

Please Note: Courses listed in this category:
1) Need not be introductory courses and need not be as broad in scope as courses included in B1, B2, B3 or B4 i.e.; they may deal with a specialized topic.
2) These courses may have prerequisites or build on or apply concepts and knowledge covered in Areas B1, B2 and B4. For math courses, there must be an intermediate algebra prerequisite.

Addresses the specific GE student learning outcomes for area B5. A student should be able to do one or more of the following:

Cite critical observations, underlying assumptions and limitations to explain and apply important ideas and models in one or more of the following: physical science, life science, mathematics, or computer science.

This GE B5 Learning Outcome #1 is addressed by the proposed Course Educational Learning Outcomes 1, 2, 3, 4.
Assessments assessing GE B5 Learning Outcomes include:
*Participation in Class Meetings and Canvas Activities
*Quizzes
*Nature Benefits Annotated Bibliography
*Nature Engagement Strategy Research Paper
*Position Papers 1-3
*Final Exam

Recognize evidence-based conclusions and form reasoned opinions about science-related matters of personal, public and ethical concern.

This GE B5 Learning Outcome #2 is addressed by the proposed Course Educational Learning Outcomes 1, 4, 5, 6, 7.
Assessments assessing GE B5 Learning Outcomes include:
*Participation in Class Meetings and Canvas Activities
*5 Journal Entries w/Peer Reply (connecting anecdotal to research evidence)
*Nature Engagement Strategy Research Paper
*Position Papers 1-4
*Final Exam

Discuss historical or philosophical perspectives pertaining to the practice of science or mathematics.

This GE B5 Learning Outcome #3 is addressed by the proposed Course Educational Learning Outcome 7.
Assessments assessing GE B5 Learning Outcomes include:
*Participation in Class Meetings and Canvas Activities
*5 Journal Entries w/Peer Reply (connecting anecdotal to research evidence)
*Nature Engagement Strategy Research Paper
*Position Paper 1,3,4
*Final Exam

Includes a writing component described on course syllabus

I) If course is lower division, formal and/or informal writing assignments encouraging students to think through course concepts using at least one of the following: periodic lab reports, exams which include essay questions, periodic formal writing assignments, periodic journals, reading logs, other. Writing in lower division courses need not be graded, but must, at a minimum, be evaluated for clarity and proper handling of terms, phrases, and concepts related to the course.
2) If course is upper division, a minimum of 1500 words of formal, graded writing. [Preferably there should be more than one formal writing assignment and each writing assignment (e.g. periodic lab reports, exams which include essay questions, a research/term paper etc.) should be due in stages throughout the semester to allow the writer to revise after receiving feedback from the instructor. Include an indication of how writing is to be evaluated and entered into course grade determination.]

Students will be assessed on their understanding, analysis, and application of course content through multiple writing assignments totaling 1,750 words during the course. The following writing assignments are spaced throughout the course schedule (see syllabus) and one major writing assignment offers students the opportunity to resubmit with revisions for a separate grade.
*5 Journal Entries w/Peer Reply (connecting anecdotal to research evidence)
*Nature Benefits Annotated Bibliography (1st draft)
*Nature Benefits Annotated Bibliography (2nd draft)
*Nature Engagement Strategy Research Paper (750 words)
*Position Paper 1-4 (250 words each)

Section 2.

If you would like, you may provide further information that might help the G.E. Course Review Committee understand how this course meets these criteria and/or the G.E. Program Objectives found in the CSUS Policy Manual, General Education Program, Section I.B.

This course proposes a curriculum that is intentionally transdisciplinary in nature, both in subtopics covered and methods of scientific inquiry presented. This is necessary to provide students a thorough understanding of the state of scientific knowledge and developing research inquiries on the impacts of nature contact on human health and wellbeing. The author is particularly qualified to teach on this topic and meet the Area B5 learning outcomes based on research literature knowledge, academic preparation, and practitioner experience. There are other faculty with in the department similarly prepared to teach the subject matter in the future. The aim with this course is to garner broad appeal across disciplines of study and offer students interested in nature engagement an engaging topic from which to develop further understanding of physical science, life forms, and quantitative reasoning.

Reviewer Comments:

Heather Thompson (heather.thompson) (Wed, 07 Oct 2020 04:49:57 GMT): Rollback: Approved with minor changes, including small typos.Committee approved the form with pending changes. Please refer to the discussion during meeting. Committee members from the department will provide the detailed changes to the chair/author. Once re-submitted, the chair may approve the proposal immediately."

Greg Shaw (sac14077) (Thu, 08 Oct 2020 20:47:18 GMT): Rollback: Sent back to address committee comments.

Greg Shaw (sac14077) (Thu, 08 Oct 2020 21:03:34 GMT): Rollback: Make changes committee requested.

Key: 14337