

# Cover Sheet: Request 10295

## Analogous Thinking in the Arts and Sciences - BSC4XXX

### Info

Process	Course New Ugrad/Pro
Status	Pending
Submitter	Davis, Ellen C christine.davis@ufl.edu
Created	6/26/2015 6:19:15 PM
Updated	10/1/2015 4:12:38 PM
Description	This is a proposal for a new 3 credit course in Biology.

### Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CLAS - Biology 011690003	Davis, Ellen C		6/26/2015
No document changes					
College	Approved	CLAS - College of Liberal Arts and Sciences	Pharies, David A		10/1/2015
Replaced UCC1_ThinkingArtScience_6_26.docx					9/20/2015
Replaced ThinkingArtScience_covlet_6_26.docx					9/20/2015
Replaced SampleTopicList_ThinkingArtScience_6_26.docx					10/1/2015
Added ThinkingArtScience_covlet_9_20.docx					9/20/2015
Added UCC1_ThinkingArtScience_9_20.docx					9/20/2015
Added SampleTopicList_ThinkingArtScience_6_26.docx					10/1/2015
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			10/1/2015
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

**Recommended SCNS Course Identification**

1. Prefix: BSC            2. Level: 4                            3. Number: 4XXX            4. Lab Code: C

5. Course Title: Analogous Thinking in the Arts and Sciences

6. Transcript Title (21 character max.): Thinking in Art & Sci

7. Effective Term: Earliest            8. Effective Year: Earliest            9. Rotating Topic: No

10. Amount of Credit: 3            11. If variable, # min. and # max. credits per semester.

12. Repeatable Credit: No            13. If yes, # total repeatable credit allowed.

14. S/U Only: No            15. Contact Type: Regularly Scheduled [base hr]

16. Degree Type: Baccalaureate            17. If other, specify: Click here to enter text.

18. Weekly Contact Hours: 6            19. Category of Instruction: Advanced

20. Delivery Method(s):    On-campus     Off-campus     Online

**21. Course Description (50 words maximum)**

Brings together scientists and artists to explore how to introduce concepts, processes, and knowledge from the sciences to create art, and those from the arts to create science. Includes a discussion-based seminar and studioloab where students will work collaboratively on science-art projects and presentations.

**22. Prerequisites**

BSC2010 & BSC2010L & BSC2011 & BSC2011L

**23. Co-requisites**

None.

**24. Rationale and Placement in Curriculum**

This course represents a unique way for science and art students to collaborate in creative ways. Its focus on application of knowledge, research, and historical connections will benefit students in the art and science programs on campus. It will serve as an elective course and will be cross-listed with an art prefix.

**25. Course Objectives**

By the end of the course students will be able to:  
 Discuss the complementary nature of art and science;  
 Collaboratively create original writings and art that demonstrate the intersection of art and science;  
 Present their work to artists and scientists.

**26. Course Textbook(s) and/or Other Assigned Reading**

No textbook is required. Course readings will be supplied by the instructors.

**27. Weekly Schedule of Topics**

This seminar portion of this course will consist of a series of talks by visiting scholars that specialize in merging science and art, as well as readings and discussions on interdisciplinary topics in art and science. The studioloab portion of the course will consist of a series of activities, including workshops with visiting scholars, science and art collaborative projects, and presentations and critiques on these projects. Thus, the topic list for the course will vary according to the people who are contributing to the course. Attached to this form is a topic list from a previous offering of this course, which provides a sample of the kinds of topics that will be covered in the course.

28. Grading Scheme

Type of Assessment, Activity or Other Assignment	Percent of Grade
Leading and participating in discussions in seminar	25%
Completion of readings and attendance at guest presentations	25%
Participation in discussion and critiques in studioloab	7.5%
Collaborative project	25%
Project presentation	7.5%
Documentation/process/methodology in studioloab notebook	10%

29. Instructor(s)

Dr. Jamie Gillooly (Biology) and Bethany Taylor (Art).
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### Itemized Instructions

1. **Prefix.** Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, in rare cases SCNS will assign a different prefix.
2. **Level.** Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).
3. **Number.** Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.
4. **Lab Code.** Enter the lab code to indicate whether the course is lecture only (blank), lab only (L), or a combined lecture and lab (C).
5. **Course Title.** Enter the title of the course as it should appear in the Academic Catalog.
6. **Transcript Title.** Enter the title that will appear in the transcript and the schedule of courses. Note that the transcript must be limited to 21 characters (including spaces and punctuation). Titles longer than 21 characters will either be abbreviated as needed or cause the approval request to be recycled.
7. **Effective Term.** Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.
8. **Effective Year.** Select the requested year that the course will first be offered. See preceding item for further information.
9. **Rotating Topic.** Select "Yes" if the course will have rotating (varying) topics in different terms. For rotating topics courses, the course title in the Schedule of Courses and the transcript can vary with the topic.
10. **Amount of Credit.** Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC.
11. If you selected "Variable" for the amount of credit, indicate the minimum and maximum number of total credits.
12. **Repeatable Credit.** Select "Yes" if the course may be repeated for credit. Some courses, such as independent study courses, will have rotating (variable) topics. Students may be allowed to repeat these courses provided the content is different.
13. If you checked "Yes" for repeatable credit, indicate the maximum number of total repeatable credits allowed per student.
14. **S/U Only.** Check this option if students should be graded as S-U in the course. Note that each course must be entered into the UF curriculum inventory as letter-graded or S-U. A course may not have both options.
15. **Contact Type.** Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis. The following options are available:
  - a. Regularly Scheduled [base hr]
  - b. Thesis/Dissertation Supervision [1.0 headcount hr]
  - c. Directed Individual Studies [0.5 headcount hr]
  - d. Supervision of Student Interns [0.8 headcount hr]
  - e. Supervision of Teaching/Research [0.5 headcount hr]
  - f. Supervision of Cooperative Education [0.8 headcount hr]Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.
16. **Degree Type.** Select Baccalaureate, Graduate, Professional or Other.
17. If you selected "Other" for degree type, specify the type.
18. **Total Contact Hours.** Indicate the number of hours faculty will have contact with students each week on average throughout the duration of the course.

19. **Category of Instruction.** Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.
- 1000 and 2000 level = Introductory undergraduate
  - 3000 level = Intermediate undergraduate
  - 4000 level = Advanced undergraduate
  - 5000 level = Introductory graduate
  - 6000 level = Intermediate graduate
  - 7000 level = Advanced graduate
  - 4000/5000 and 4000/6000 levels = Joint undergraduate/graduate (these must be approved by the UCC and the Graduate Council)
20. **Delivery Method(s).** Indicate all platforms through which the course is *currently planned* to be delivered.
21. **Course Description.** Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 50 words or less. See course description guidelines.
22. **Prerequisites.** Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.
- Completing Prerequisites on UCC forms:
    - Use “&” and “or” to conjoin multiple requirements; do not use commas, semicolons, etc.
    - Use parentheses to specify groupings in multiple requirements.
    - Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
    - Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).
    - “Permission of department” is always an option so it should not be included in any prerequisite or co-requisite.
  - Example: A grade of C in HSC 3502, passing grades in HSC 3057 or HSC 4558, and major/minor in PPHP should be written as follows:  
HSC 3502(C) & (HSC 3057 or HSC 4558) & (HP college or (HS or CMS or DSC or HP or RS minor))
23. **Co-requisites.** Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system.
24. **Rationale and Placement in Curriculum.** Explain the reason for adding the course to the curriculum and how the course will fit into the curriculum.
25. **Course Objectives.** Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.
26. **Course Textbook(s) and/or Other Assigned Reading.** Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned, or a representative list of readings.
27. **Weekly Schedule of Topics.** Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.
28. **Grading Scheme.** List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity.
29. **Instructor(s).** Enter the name of the planned instructor or instructors, or “to be determined” if instructors are not yet identified.

### Sample topic list for BSC4XXX Analogous Thinking in the Arts and Sciences

Topics will vary in future offerings due to differing faculty contributions.

Week	Topic
1	<p><b>Seminar:</b> Introduction of faculty and teaching assistants, review of course outline and visiting lecturers. Introduction of students.</p> <p><b>StudioLab:</b> Guided discussion among students of potential research topics, and the intersections of science and art.</p>
2	<p><b>Seminar:</b> Lecture by David Freedberg, Professor of Art History, Harn Museum of Art, Chandler Auditorium. Freedberg's lecture addresses a crisis in visual representation in 17th century Europe that was prompted by new discoveries made possible by the invention of the telescope and the microscope. Thursday January 19, 6:00pm</p> <p><b>StudioLab:</b> Drs. Stephen Macknik and Susana Martinez-Conde, Co-Directors of the Barrow Neurological Institute in Phoenix, AZ will conduct a workshop on illusions and "object d'arts" on Friday Jan 20, 2012 8:30-11:30am</p> <p><b>Seminar:</b> January 21, 3-5 pm: Lecture by Drs. Stephen Macknik and Susana Martinez-Conde, "Sleights of Mind: The Neuroscience of Magic" at McKnight Brain Institute, Dewese Auditorium, Room LG-101A</p>
3	<p><b>Seminar:</b> Discussion of 2 readings and 2 visiting scholars. Led by Kayla Adams and Julie Allen.</p> <p><b>StudioLab:</b> Lecture on parameters of collaborative projects. What is the science question and what is the art question? Guided discussion and formation of collaborative groups.</p>
4	<p><b>Seminar:</b> Kate Nichols lecture "Misadventures in Art and Science" Thursday Feb. 2<sup>nd</sup> at 6:30pm, FAB 105 (TBA?).</p> <p><b>StudioLab:</b> Workshop on methodology and collaborative process under the guidance of Kate Nichols</p>
5	<p><b>Seminar:</b> Chris Sloan lecture "21st Century Science Media Landscapes" in Genetics Auditorium Thursday February 9<sup>th</sup> at 6:30pm.</p> <p><b>StudioLab:</b> Science visualization exercise with Chris Sloan. Discussion of presentation strategies</p>
6	<p><b>Seminar:</b> Discussion of student project presentation strategies for an audience consisting of scientists, artists, and the general public. What have we seen so far in the lecture series that was effective and transferable to the student projects?</p> <p><b>StudioLab:</b> Students work in small groups of 2, possibly 3, to work on projects, data collection, experimentation, and presentations.</p>
7	<p><b>Seminar:</b> Eduardo Kac lecture at Harn Museum, "Telepresence and Bio Art" Thursday Feb. 23, at 6:30pm. Followed by booksigning.</p>

	<b>StudioLab:</b> Workshop with Eduardo Kac. Mid-project presentations for discussion with Professor Kac.
8	<b>Seminar:</b> Discussion of Eduardo Kac lecture and workshop <b>Studio/Lab:</b> Class participates in installation of the exhibition Analogous Thinking in Art and Science in Focus Gallery.
9	Spring Break
10	<b>Seminar:</b> Discussion led by Dr. Julie Allen, Postdoctoral Fellow and Kayla Adams, Teaching Assistant. Lecture by Todd Palmer (TBA). <b>Studio/Lab:</b> Work on collaborative projects
11	<b>Seminar:</b> Dr. Todd Siler lecture “How Analogies Inspire Wonder, Awakening Our Curiosity, Creativity and Innovative Thinking: The Artscience of Metaphorming”, Harn Museum, Chandler Auditorium, 6:30pm. <b>StudioLab:</b> Todd Siler will lead a workshop.
12	<b>Seminar:</b> Dr. David Goodsell lecture “Visual Methods from Atoms to Cells” at Genetics Auditorium, Rm 101, 1376 Mowry Road, UF 6:30pm <b>StudioLab:</b> David Goodsell will lead a workshop
13	<b>Seminar:</b> TBA <b>StudioLab:</b> Work
14	<b>Seminar:</b> TBA <b>StudioLab:</b> Collaborative Project Presentations
15	<b>Seminar:</b> TBA <b>StudioLab:</b> Collaborative Project Presentations



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June 26, 2015

Dear Curriculum Committee,  
Attached please find a syllabus for a new 3-credit rotating topics course taught by Dr. Jamie Gillooly and Bethany Taylor in the Art Department.

This course has been offered once in the past under special topics Z004926, cross listed with ART4930, and enjoyed an enrollment of roughly 20 students – about half science majors and half art majors.

There has been increasing interest and activity on this topic on campus in recent years, but no class has yet been formally offered. Dr. Gillooly has received numerous requests from students to teach the course again.

The course will serve as a 3-credit elective and will represent a unique way for students and faculty of science and art to collaborate in creative ways. Its focus on research and historical connections between the disciplines, as well as cooperative application of knowledge, will be a boon to the undergraduate curriculum in science and art.

We do not expect conflicts with other programs. A letter of support has been requested from the School of Art. Please contact me if you have further questions.

Sincerely,

Christine Davis  
Lecturer and Undergraduate Coordinator  
christine.davis@ufl.edu