

GE CRITERIA APPROVAL FORM

Course Number and Title: Math 320 (33) 0 Mathematics and Fine Arts

Faculty member(s) proposing Course: Ivona Grzegorzcyk, Prof. of Mathematics, Nikolaos Diamantis, Assistant Prof. of Mathematics,

Indicate which of the following GE would be satisfied by this course by marking an “X” on the appropriate lines. Courses may be placed in up to *two* GE categories as appropriate. Upper Division Interdisciplinary GE courses (UDIGE) may be placed in two GE categories in addition to the UDIGE category.

GE Category	
<input type="checkbox"/>	A1: Oral Communication
<input type="checkbox"/>	A2: English Writing
<input type="checkbox"/>	A3: Critical Thinking
<input type="checkbox"/>	B1: Physical Sciences—Chemistry, Physics, Geology, and Earth Sciences
<input type="checkbox"/>	B2: Life Sciences—Biology
<input checked="" type="checkbox"/>	B3: Mathematics—Mathematics and Applications
<input type="checkbox"/>	B4: Computers and Information Technology
<input type="checkbox"/>	C1: Art
<input type="checkbox"/>	C2: Literature
<input type="checkbox"/>	C3a: Language
<input type="checkbox"/>	C3b: Multicultural
<input type="checkbox"/>	D: Social Perspectives
<input type="checkbox"/>	E: Human Physiological and Psychological Perspectives
<input checked="" type="checkbox"/>	Upper Division Interdisciplinary GE
Lab Included? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Please provide a brief explanation of how the proposed course meets *each* of the criteria for the selected GE categories. B3 – students will:

1. Use abstract mathematical methods to analysis of artistic creations;
2. Classify patterns using mathematical rules coming from Abstract Group Theory
3. Solve mathematical designing problems such as tiling questions and 2D and 3D pattern creation
4. Use computer software to generate patterns using mathematical rules

Interdisciplinary:

1. The course integrates contents, ideas and approaches used by artists and mathematicians (for example Klimt, Escher, surrealists, computer graphics)
2. Students will:
 - a) systematically study designs and patterns in Fine Arts from ancient to contemporary artists (from ancient Greek, Italian, Egiptian, Islamic art to surrealism, and geometric art (suh as Kilmt, Escher, Mondrian, Lichtenstin, or computer graphics)
 - b) study and learn to appreciate beauty of famous applications of symmetries in Fine Arts (2D and 3D)
 - c) Create their own artistic patterns, analyze them and criticize their aesthetic value
 - d)Study composition and harmony of artistic creation using known artists and their own work
3. The course includes written essays on pattern design and artistic interpretations of pattern rules by various artists.
4. The course is a recommended course for Art Majors

CALIFORNIA STATE UNIVERSITY CHANNEL ISLANDS

COURSE MODIFICATION PROPOSAL

PROGRAM AREA _____

1. Catalog Description of the Course. *[Include the course prefix, number, full title, and units. Provide a course narrative including prerequisites and corequisites. If any of the following apply, include in the description: Repeatability (May be repeated to a maximum of ___ units); time distribution (Lecture ___ hours, laboratory ___ hours); non-traditional grading system (Graded CR/NC, ABC/NC). Follow accepted catalog format.]*

OLD NUMBER

MATH 320 Mathematics and Fine Arts (3)

NEW NUMBER

MATH 330 Mathematics and Fine Arts (3)

Three hours of lecture in the lab per week

Prerequisites: A passing score on the Entry Level Mathematics examination, or credit in Math 095 .

The course is specially designed for students interested in fine arts, with the emphasis on understanding geometric patterns and concepts by self-explorations. Instead of concentrating on abstraction, the course creates a vast reservoir of art-related examples and hands-on experiences, and will give an innovative mathematical background for future artistic endeavors of students.

GenEd: B3, Interdisciplinary

2. Mode of Instruction.

	Units	Hours per Unit	Benchmark Enrollment
Lecture	3	1	24
Seminar	_____	_____	_____
Laboratory	_____	_____	_____
Activity	_____	_____	_____

5. Indicate Changes and Justification for Each. *[Check all that apply and follow with justification. Be as brief as possible but, use as much space as necessary.]*

- ___ Course title
- ___ Prefix/suffix
- ___ Course number
- ___ Units
- ___ Staffing formula and enrollment limits
- ___ Prerequisites/corequisites
- ___ Catalog description
- ___ Course content
- ___ References
- ___ x GE
- ___ Other

6. If this modification results in a GE-related change indicate GE category affected:

A (English Language, Communication, Critical Thinking)	
B (Life Sciences)	B3
C (Fine Arts, Literature, Languages & Cultures)	
D (Social Perspectives)	
E (Human Psychological and Physiological Perspectives)	

7. Consultation

Attach consultation sheets from all program areas, Library, and others (if necessary)

8. If this course modification will alter any degree, credential, certificate, or minor program in your program attach a program modification.

Proposer of Course Modification

Date

**California State University Channel Islands
Course Modification Consultation Sheet**

1. Course Title: _____

2. Program Area: _____

Recommend Approval

Program Area/Unit	Program/Unit Chair	YES	NO (attach objections)	Date
Art				
Biology				
Business & Economics				
Education				
English				
History				
Liberal Studies				
Mathematics & CS				
Multiple Programs				
Psychology				
Library				
Information Technology				