

INDIANA UNIVERSITY OF PENNSYLVANIA
SENATE CURRICULUM COMMITTEE B-2

COURSE SYLLABUS

Course Syllabus: AR 2xx/6xx, ADVANCED COMPUTER GRAPHICS AND ELECTRONICS IMAGERY
Dual Level

Date Submitted: January, '88

Submitted by: Paul Ben-Zvi

Department: Art & Art Education

- I. Course Identification
- II. Catalog Description (attached)
- III. Course Objectives

To advance students' abilities in the art of Computer Graphics and Electronic Imagery. To further student use of hardware and software and their application to aesthetic design and production. To enable the artist to pursue advanced problems in Computer Graphics & Electronic Imagery for self expression, communication, and production in a variety of media and techniques.

IV. Academic Content
Course Outline

- 1. A Review of Basic Computer Graphics & Electronics Imagery
 - A. The Broad Field
 - B. Art Department Facilities
 - C. Other IUP Facilities
- 2. Advanced Use of the Micro Computer
 - A. Basic Operations
 - 1) Hardware
 - 2) Software
 - 3) File Management
 - 4) Word Processing
 - B. Specialized Computer Graphics & Electronic Imagery Devices
 - 1) Input Devices
 - 2) Output Devices
 - 3) Presentation Devices

3. Design Development with Computers & Electronic Media

A. Illustration & Image Management

- 1) Drawing
- 2) Painting
- 3) Editing
- 4) Page Layout
- 5) Text, type, and fonts
- 6) Printing and Publishing

B. Directed Projects and Advanced Problems

- 1) Group
- 2) Individual

C. Individual Research

- 1) Evaluation and Application of Commercial Software
- 2) Hardware Applications
- 3) Animation
- 4) Book and Publication Design
- 5) Application of Computer Graphics & Electronic Imagery to traditional media and design concerns

D. Special Projects--an exploration of the unique qualities of Computer Graphics and Electronic Imagery

4. Product Development

- A. Prints
- B. Slides and Photographs
- C. Video recordings
- D. Publications
- E. Other two and three dimensional forms

V. Procedures

As with other advanced art studio courses, Computer Graphics & Electronic Imagery will meet 6 hours per week for a combination of lectures, demonstrations, project development, problem solving, group and individual critiques. The nature of Computer Graphics & Electronic Imagery's specialized equipment and "hands-on interactivity" means that though some "homework" will be done as research in the library, and as applications in a variety of studios, most must be done as work outside the regular class time in the Computer Graphics & Electronics Imagery's dedicated facility. As in other art studios, advanced students share class assignments and follow individual pursuits as their abilities, preparation, needs and interest direct.

VI. Text

No applicable text exists as yet. Several contenders have been announced and will be evaluated.

As in most art studio courses, no text is required. We are building an extensive library within the art department of books and periodicals. Bibliographies are being developed and new Computer Graphics & Electronic Imagery books will be requested for the Stapleton Library as they are developed. Our art based program will utilize the library's broad holdings of works on traditional art and artists. At present, the fast development of Computer Graphics technology makes up-to-date periodicals more important than behind the times books in the field. The nature of this discipline requires a library of films, videotapes, and disks. Such a collection is being assembled in Sprowls Hall and at the Stabley Audio-Visual Media Library. As a SIGGRAPH Educational Resources Grant recipient, Mr. Ben-Zvi has been awarded an extensive library of state of the art Computer Graphics instructional slides, videos, course notes and research papers.

VII. Additional Readings

Students will be expected to study the applicable materials as noted in VI above. Advanced students will be expected to develop an awareness of the state of the art as it is practiced with facilities outside the confines of IUP.

VIII. Evaluation

As in other art studios, students are evaluated regularly during and after the development of projects. Individual growth, problem solving, and the creative application of technology and resources are evaluated. Oral and written evaluations, individual and group critiques help to develop and evaluate projects at preliminary, in process, semi-final, and final stages. Advanced students are expected to be more self directed in their pursuit and development of personal initiatives.

IX. Other Course Requirements

These are determined by individual projects and changing opportunities, (such as visiting speakers, area exhibitions, and invitations to observe specialized and professional Computer Graphics & Electronic Imagery facilities). Advanced students will plan and evaluate their special projects in consultation with the instructor.

INDIANA UNIVERSITY OF PENNSYLVANIA
SENATE CURRICULUM COMMITTEE B-2

COURSE SYLLABUS

Course Syllabus: AR 5xx, (Fundamentals) COMPUTER GRAPHICS AND ELECTRONIC IMAGERY

Date Submitted: April 1, 1987; January, 1988

Submitted by: Paul Ben-Zvi

Department: Art & Art Education

I. Course Identification

II. Catalog Description (attached)

III. Course Objectives

To introduce students to the art of computer graphics and electronic imagery: the potential of available hardware and software, and its application to aesthetic design and production. To enable the artist to experiment, preview, edit and develop compositions with the aid of Computer Graphics & Electronic Imagery media. To enable the artist to use the media for self expression and group communication. To design with computers works to be produced in a variety of media and techniques. To explore Computer Graphics & Electronic Imagery's unique qualities. To unite and develop each student's visual and computer literacy.

IV. Academic Content
Course Outline

1. An Introduction to Computer Graphics & Electronic Imagery

- A. The Broad Field
- B. Art Department Facilities
- C. Other IUP Facilities

2. Using the Micro Computer

A. Basic Operations

- 1) Hardware
- 2) Software
- 3) File Management
- 4) Word Processing

B. Specialized Computer Graphics & Electronic Imagery Devices

- 1) Input Devices
- 2) Output Devices
- 3) Presentation Devices

3. Design Development with Computers & Electronic Media

- A. Drawing
- B. Painting
- C. Editing

4. Directed Projects

- A. Poster Design
- B. Likenesses and Portraits
- C. Compositional Analysis of Master Artists' Paintings

5. Individual and Small Group Research

- A. Evaluation and Application of Commercial Software
- B. Hardware Applications
- C. Animation
- D. Book and Publication Design
- E. Application of Computer Graphics & Electronic Imagery to traditional media and design concerns

6. Product Development

- A. Prints
- B. Slides and Photographs
- C. Video recordings
- D. Publications
- E. Other two and three dimensional forms

V. Procedures

As with other art studio courses, Computer Graphics & Electronic Imagery will meet 6 hours per week for a combination of lectures, demonstrations, project development, problem solving, group and individual critiques. The nature of Computer Graphics & Electronic Imagery's specialized equipment and "hands-on interactivity" means that though some "homework" will be done as research in the library, and as applications in a variety of studios, much must be done as work outside the regular class time in the Computer Graphics & Electronics Imagery's dedicated facility.

VI. Text

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VII. Additional Readings

Students will be expected to study the applicable materials as noted in VI above.

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As in other art studios, students are evaluated regularly during and after the development of projects. Individual growth, problem solving, and the creative application of technology and resources are evaluated. Oral and written evaluations, individual and group critiques help to develop and evaluate projects at preliminary, in process, semi-final, and final stages.

IX. Other Course Requirements

These are determined by individual projects and changing opportunities, (such as: visiting speakers; area exhibitions; and invitations to observe specialized and professional Computer Graphics & Electronic Imagery facilities).