

## TEC-925 – Advanced Computer Graphics: Photoshop, Bryce & Poser

### Independent Study Correspondence Course Syllabus

**Instructor:** Steve Young

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**Website:** [www.steveyoungfpu.net](http://www.steveyoungfpu.net)

**Number of Graduate Semester Units:** 3 units

**Target Audience:** K - 12<sup>th</sup> grade teachers

#### Course Description

Designed for the experienced computer user, this course provides the opportunity to experiment with a trio of graphics applications to create high quality photo-realistic and 3D artwork. Utilizing the best-selling software Photoshop, Bryce & Poser (demonstration versions of each included on the course DVDROM) soon you will be creating your own professional-quality graphic presentations. After completing this engaging course you will have the knowledge and experience to pass along to your students in a variety of classroom settings including art, journalism, computer applications and vocational education.

Outcomes are aligned to International Society for Technology in Education (ISTE) standards. Instructor support is readily available by email or phone. All assignments may be completed without classroom participation. For information on the Fresno Pacific University Academic Policies and Procedures for Independent Study Courses go online to <https://ce.fresno.edu> and click the 'CE Policies and Procedures' link at the bottom of the page.

**IMPORTANT:** This course **does not currently support Mac OS 10.7 and later.**

**Note:** There is no required textbook for this course.

#### Required Texts and Course Materials

##### Course Materials:

**Workbook** - *Advanced Computer Graphics* by Steve Young.

**DVD-ROM** - Containing demonstration software (for both Mac and Windows) of Bryce, Photoshop & Poser; electronic manuals for all 3 programs and video demonstrations of assignments by the instructor (*excluding* electives)

**Instructor Website:** [www.steveyoungfpu.net](http://www.steveyoungfpu.net) containing complete, detailed course syllabus and additional course information.

## Course Dates

Self-paced; students may enroll at any time and take up to one year, from the date of registration, to complete assignments. Students may complete assignments in no less than three weeks for a 3-unit course (one week per unit).

## National Standards Addressed in This Course

### National Board for Professional Teaching Standards (NBPTS)

(<http://www.nbpts.org/standards-five-core-propositions/>)

First published in 1989 and updated in 2016, [\*What Teachers Should Know and Be Able to Do\*](#) articulates the National Board's Five Core Propositions for teaching. The Five Core Propositions - comparable to medicine's Hippocratic Oath — set forth the profession's vision for accomplished teaching. Together, the propositions form the basis of all National Board Standards and the foundation for National Board Certification. Course assignments have been designed so students can demonstrate excellence against these professional teaching standards whenever possible.

- Proposition 1: Teachers are committed to students and their learning
- Proposition 2: Teachers know the subject they teach and how to teach those subjects to students
- Proposition 3: Teachers are responsible for managing and monitoring student learning
- Proposition 4: Teachers think systematically about their practice and learn from experience
- Proposition 5: Teachers are members of learning communities

### International Society for Technology in Education (ISTE) Standards ([www.iste.org/standards](http://www.iste.org/standards))

Assignments contained within this course meet several important proficiency guidelines as defined by ISTE. The ISTE Standards provide a framework for learning, teaching and leading that is amplified by technology. They provide a roadmap for educators worldwide as they navigate decisions about curriculum, instruction, professional learning and the transformation of pedagogy with technology. The seven standards are:

1. Learner - Educators continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning.
2. Leader - Educators seek out opportunities for leadership to support student empowerment and success and improve teaching and learning.
3. Citizen - Educators inspire students to positively contribute to and responsibly participate in the digital world.
4. Collaborator - Educators dedicate time to collaborate with both colleagues and students to improve practice, discover and share resources and ideas, and solve problems.
5. Designer - Educators design authentic, learner-driven activities and environments that recognize and accommodate learner variability.
6. Facilitator - Educators facilitate learning with technology to support student achievement of the 2016 ISTE Standards for Students.
7. Analyst - Educators understand and use data to drive their instruction and support students in achieving their learning goals.

## Continuing Education Program Student Learning Outcomes

|      |   |
|------|---|
| CE 1 | Demonstrate proficient written communication by articulating a clear focus, synthesizing arguments, and utilizing standard formats in order to inform and persuade others, and present information applicable to targeted use.                                    |
| CE 2 | Demonstrate comprehension of content-specific knowledge and the ability to apply it in theoretical, personal, professional, or societal contexts.   |
| CE 3 | Reflect on their personal and professional growth and provide evidence of how such reflection is utilized to manage personal and professional improvement.  |
| CE 4 | Apply critical thinking competencies by generating probing questions, recognizing underlying assumptions, interpreting and evaluating relevant information, and applying their understandings to the professional setting.  |
| CE 5 | Reflect on values that inspire high standards of professional and ethical behavior as they pursue excellence in applying new learning to their chosen field.  |
| CE 6 | Identify information needed in order to fully understand a topic or task, organize that information, identify the best sources of information for a given enquiry, locate and critically evaluate sources, and accurately and effectively share that information. |

## Student Learning Outcomes (SLOs) for This Course

| <b>Student Learning Outcomes for This Course</b><br>By the end of this course student will be able to:   | <b>National Standards Addressed in This Course*</b> | <b>Continuing Education Program Student Learning Outcomes Addressed**</b> |
|--|---|---|
| 1. Become familiar with the interface of sophisticated computer graphics programs.   | ISTE 1d   | CE 6  |
| 2. Become familiar with the tools used in photo-realistic and 3D graphic programs. <ul style="list-style-type: none"> <li>• Photoshop</li> <li>• Bryce</li> <li>• Poser</li> </ul> | ISTE 1d   | CE 4  |
| 3. Modify images to improve their visual impact.   | ISTE 6d   | CE 4  |
| 4. Compose images to achieve effective communication.  | ISTE 6d   | CE 4  |
| 5. Become proficient at linking standards to technology-based curriculum   | ISTE 5b   | CE 6  |

\* Please refer to the section on **National Standards Addressed in This Course**

\*\* Please refer to the section on **Continuing Education Program Student Learning Outcomes**

## Assignments, and Activities

| Course Assignments and Activities    | Points Possible for Each Assignment |
|--------------------------------------|-------------------------------------|
| Photoshop Project 1: Layers          | 5 pts                               |
| Photoshop Project 2: Masking         | 5 pts                               |
| Photoshop Project 3: Filters         | 5 pts                               |
| Photoshop Project 4: Retouching      | 5 pts                               |
| Photoshop Project 5: Text            | 5 pts                               |
| Bryce Project 1: Simple Landscape    | 5 pts                               |
| Bryce Project 2: Primitive Object    | 5 pts                               |
| Bryce Project 3: Boolean Operations  | 5 pts                               |
| Bryce Project 4: 2D picture tool     | 5 pts                               |
| Bryce Project 5: Animation           | 5 pts                               |
| Poser Project 1: Simple Figure       | 5 pts                               |
| Poser Project 2: Interactive Figures | 5 pts                               |
| Poser Project 3: Background          | 5 pts                               |
| Poser Project 4: Faces               | 5 pts                               |
| Poser Project 5: Animation           | 5 pts                               |
| Elective Project 1                   | 7 pts                               |
| Elective Project 2                   | 7 pts                               |
| Elective Project 3                   | 7 pts                               |
| Post-course teacher survey           | 1 pt                                |
| Standards Correlation chart          | 2 pts                               |
| Course Evaluation                    |                                     |
| <b>TOTAL POINTS</b>                  | <b>100 points</b>                   |

## Grading Policies, Rubrics, and Requirements for Assignments

### Grading Policies

- Assignments will be graded per criteria presented in the course rubrics.
- A = 90-100% and B = 80-89%, (anything below 80% will not receive credit.)
- The discernment between an A or a B letter grade is at the discretion of the instructor based on the quality of work submitted (see course rubrics).
- Coursework falling below a B grade will be returned with further instructions.
- All assignments must be completed to receive a grade and are expected to reflect the quality that teacher-training institutions require of professional educators. If completed assignments do not meet this standard, students will be notified with further instructions from the instructor.

### Grading Rubrics

| Grade | Percent | Description | Rubric  |
|-------|---------|-------------|---|
| A     | 90-100% | Excellent   | Meets all course / assignment requirements with significant evidence of subject mastery and demonstration of excellent graduate level professional development scholarship. |

|    |           |              |  |
|----|-----------|--------------|--|
| B  | 80-89%    | Very Good    | Adequately meets criteria for all course/assignment requirements - demonstrates subject competency with very good graduate level professional development scholarship.                 |
| NC | Below 80% | Unacceptable | Does not meet the minimum criteria for all course/assignment requirements and demonstrated little, if any, evidence of acceptable graduate level professional development scholarship. |

### Writing Requirements

- **Superior:** Writing is clear, succinct, and reflects graduate level expectations. Clearly addresses all parts of the writing task. Maintains a consistent point of view and organizational structure. Include relevant facts, details, and explanations.
- **Standard:** Writing is acceptable with very few mistakes in grammar and spelling. Addresses most parts of the writing task. Maintains a mostly consistent point of view and organizational structure. Include mostly relevant facts, details, and explanations.
- **Sub-standard:** Writing contains noticeable mistakes in grammar and spelling. Does not address all parts of the writing task. Lacks a consistent point of view and organization structure. May include marginally relevant facts, details, and explanations.

### Lesson Plan Requirements

- **Superior:** Instructional goals and objectives clearly stated. Instructional strategies appropriate for learning outcome(s). Method for assessing student learning and evaluating instruction is clearly delineated and authentic. All materials necessary for student and teacher to complete lesson clearly listed.
- **Standard:** Instructional goals and objectives are stated but are not easy to understand. Some instructional strategies are appropriate for learning outcome(s). Method for assessing student learning and evaluating instruction is present. Most materials necessary for student and teacher to complete lesson are listed.
- **Sub-standard:** Instructional goals and objectives are not stated. Learners cannot tell what is expected of them. Instructional strategies are missing or strategies used are inappropriate. Method for assessing student learning and evaluating instruction is missing. Materials necessary for student and teacher to complete lesson are missing.

### Grading Rubrics

| Grade | Percent   | Description  | Rubric   |
|-------|-----------|--------------|--|
| A     | 90-100%   | Excellent    | Meets all course / assignment requirements with significant evidence of subject mastery and demonstration of excellent graduate level professional development scholarship.            |
| B     | 80-89%    | Very good    | Adequately meets criteria for all course assignment requirements - demonstrates subject competency with very good graduate level professional development scholarship.                 |
| NC    | Below 80% | Unacceptable | Does not meet the minimum criteria for all course assignment requirements and demonstrated little, if any, evidence of acceptable graduate level professional development scholarship. |

## **Instructor/Student Contact Information**

This course requires a minimum of three contacts between the student and the instructor. The first contact point occurs after the student enrolls in the course. The instructor contacts the student by phone to welcome them to the course and Fresno Pacific University. The instructor provides an overview of the course, material, assignments, and expectations for successful completion of the course. This initial interaction also establishes a foundation for future interactions (via email or phone). The second interaction should occur when the student is approximately half-way through the course. The instructor can field any assignment questions and learn what has been most beneficial to the student so far. The final conversation occurs at the end of the course. This interaction provides a final check that all assignments have been completed, final grade request has been submitted, and answer any final questions or concerns.

## **Coursework Hours**

Based on the Carnegie Unit standard, a unit of graduate credit measures academic credit based on the number of hours the student is engaged in learning. This includes all time spent on the course: reading the textbook, watching videos, listening to audio lessons, researching topics, writing papers, creating projects, developing lesson plans, posting to discussion boards, etc. Coursework offered for FPU Continuing Education graduate credit adheres to 45 hours per semester unit for the 900-level courses. Therefore, a student will spend approximately 90 hours on a typical 2-unit course or 135 hours on a typical 3-unit course.

## **Services for Students with Disabilities**

Students with disabilities are eligible for reasonable accommodations in their academic work in all classes. In order to receive assistance, the student with a disability must provide the Academic Support Center with documentation, which describes the specific disability. The documentation must be from a qualified professional in the area of the disability (i.e. psychologist, physician or educational diagnostician). Students with disabilities should contact the Academic Support Center to discuss academic and other needs as soon as they are diagnosed with a disability. Once documentation is on file, arrangements for reasonable accommodations can be made. For more information and for downloadable forms, please go to <https://www.fresno.edu/students/academic-support/services-students-disabilities>.

## **Plagiarism and Academic Honesty**

All people participating in the educational process at Fresno Pacific University are expected to pursue honesty and integrity in all aspects of their academic work. Academic dishonesty, including plagiarism, will be handled per the procedures set forth in the Fresno Pacific University Catalogue - <https://www.fresno.edu/students/registrar-office/academic-catalogs>

## **Technology Requirements**

To successfully complete the course requirements, course participants will need Internet access, can send and receive email, know how to manage simple files in a word processing program, and have a basic understanding of the Internet. Please remember that the instructor is not able to offer technical support. If you need technical support, please contact your Internet Service Provider.

## Final Course Grade and Transcripts

When all work for the course has been completed, students will need to logon to the Continuing Education website (<https://ce.fresno.edu/my-account>) and “Request Final Grade”. Once the instructor receives the requests and submits the grade online, students may log back in to view their Final Grade Report or order transcripts online. Please allow at least two weeks for the final grade to be posted. For more information, see the Continuing Education Policies and Procedures at <https://ce.fresno.edu/ce-policies-and-procedures>.

## University Policies and Procedures

Students are responsible for becoming familiar with the information presented in the Academic Catalog and for knowing and observing all policies and procedures related to their participation in the university community. A summary of university policies may be found on the university website at <https://www.fresno.edu/students/registrars-office/academic-catalogs>.

## Fresno Pacific University Student Learning Outcomes

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|--|
| <b>Student Learning Outcomes Oral Communication:</b> Students will <i>exhibit</i> clear, engaging, and confident oral communication – in both individual and group settings – and will critically <i>evaluate</i> content and delivery components.   |
| <b>Written Communication:</b> Students will <i>demonstrate</i> proficient written communication by <i>articulating</i> a clear focus, <i>synthesizing</i> arguments, and utilizing standard formats in order to <i>inform</i> and <i>persuade</i> others.  |
| <b>Content Knowledge:</b> Students will <i>demonstrate</i> comprehension of content-specific knowledge and the ability to apply it in theoretical, personal, professional, or societal contexts.   |
| <b>Reflection:</b> Students will <i>reflect</i> on their personal and professional growth and <i>provide evidence</i> of how such reflection is utilized to manage personal and vocational improvement.  |
| <b>Critical Thinking:</b> Students will <i>apply</i> critical thinking competencies by <i>generating</i> probing questions, <i>recognizing</i> underlying assumptions, <i>interpreting</i> and <i>evaluating</i> relevant information, and <i>applying</i> their understandings to new situations.   |
| <b>Moral Reasoning:</b> Students will <i>identify</i> and <i>apply</i> moral reasoning and ethical decision-making skills, and <i>articulate</i> the norms and principles underlying a Christian world-view.   |
| <b>Service:</b> Students will <i>demonstrate</i> service and reconciliation as a way of leadership.  |
| <b>Cultural and Global Perspective:</b> Students will <i>identify</i> personal, cultural, and global perspectives and will employ these perspectives to <i>evaluate</i> complex systems.   |
| <b>Quantitative Reasoning:</b> Students will accurately <i>compute</i> calculations and symbolic operations and <i>explain</i> their use in a field of study.  |
| <b>Information Literacy:</b> Students will <i>identify</i> information needed in order to fully understand a topic or task, <i>explain</i> how that information is organized, <i>identify</i> the best sources of information for a given enquiry, <i>locate</i> and critically <i>evaluate</i> sources, and accurately and effectively <i>share</i> that information. |