

2006-2007 :: B.A. in Arts and Technology

1. Mission Statement: The mission of our undergraduate Arts and Technology program is to provide students a broad grounding in digital content design and development by exposing them to the theory and practice of computer programming, information design, computer graphics/animation, digital sound design and interactive game design. The goal of the program is to prepare students to understand and succeed in the media-rich, technologically sophisticated world of the 21st century.

2. Objectives:

2.1 Knowledge Base: Students will describe and analyze fundamental concepts, theoretical perspectives, and historical and latest trends in digital content design and development.

2.1.1 Related General Education Outcome Item(s): 1. Communication; 5. Visual & Performing Arts; 10. Foundational Knowledge in Discipline(s)

2.1.2 Related Strategic Plan Item(s): I-1 Research Enterprise Initiative; VI-2 The Arts

2.1.3 Student Related Objective: Yes - This is a student related objective.

2.2 Identify effective digital methods: Students will identify effective digital methods for visualizing artistic concepts.

2.2.1 Related General Education Outcome Item(s): 5. Visual & Performing Arts

2.2.2 Related Strategic Plan Item(s): I-1 Research Enterprise Initiative; III-2 Innovative Centers and Institutions; VI-2 The Arts

2.2.3 Student Related Objective: Yes - This is a student related objective.

2.3 Technology Based Creativity: Students will create original digital works that demonstrate their artistic and technical skills and reflect a high degree of individual expression.

2.3.1 Related General Education Outcome Item(s): 5. Visual & Performing Arts

2.3.2 Related Strategic Plan Item(s): III-2 Innovative Centers and Institutions; V-2 Enhanced Quality of Life; VI-2 The Arts

2.3.3 Student Related Objective: Yes - This is a student related objective.

2.4 Critical Thinking and Communication Skills: Students will explain aesthetic and technical merits of their works and others .

2.4.1 Related General Education Outcome Item(s): 1. Communication; 5. Visual & Performing Arts

2.4.2 Related Strategic Plan Item(s): VI-2 The Arts

2.4.3 Student Related Objective: Yes - This is a student related objective.

2.5 Apply skills to construct creative projects: Students will construct creative projects by applying the knowledge and skills that they have gained in the program.

2.5.1 Related General Education Outcome Item(s): 1. Communication; 5. Visual & Performing Arts

2.5.2 Related Strategic Plan Item(s): VI-2 The Arts

2.5.3 Student Related Objective: Yes - This is a student related objective.

3. Measures & Findings:

3.1 Embedded questions: Embedded multiple-choice and essay exam questions assessing fundamental concepts, theoretical perspectives, and historical and latest trends in digital content design and development (ATEC 3317, 3227, 4337).

3.1.1 Assessment Timeframe: Every semester that courses are offered.

3.1.2 Success Criteria: 100 out of 150 students will answer at least 7 out of 10 exam questions covering this objective.

3.1.3 Related Objective(s): Knowledge Base

3.1.4 Results Related To Success Criteria: The criterion was met. 109 out 133 students correctly answered at least 7 out of 10 exam questions covering this objective.

3.1.5 Numerical Results: 82% correctly answered at least 7 out of 10 exam questions covering this objective.

3.1.6 Achievement Level: Met

3.1.7 Further Action: No

3.2 Reports/Discussions: Reports/discussions on reading assignments in ATEC 3351.

3.2.1 Assessment Timeframe: Every semester that course is offered.

3.2.2 Success Criteria: 20 out of 30 students will receive an average or above rating on rubrics that include main points students must address in all reports and discussions.

3.2.3 Related Objective(s): Knowledge Base

3.2.4 Results Related To Success Criteria: The criterion was met. 29 out 31 students (83%) received an average or above rating.

3.2.5 Numerical Results: 83% received an average or above rating.

3.2.6 Achievement Level: Met

3.2.7 Further Action: No

3.3 Student evaluation: End-of-semester student self-evaluation ratings of achievement of this goal (ATEC 2331, 2382, 2383, 3317, 3327, 3351, 3361, 3363, 4337, 4370).

3.3.1 Assessment Timeframe: Every semester that courses are offered.

3.3.2 Success Criteria: 400 out of 550 students will report being successful or very successful in achieving this goal.

3.3.3 Related Objective(s): Knowledge Base

3.3.4 Results Related To Success Criteria: The criterion was met. 336 out of 380 students reported positively.

3.3.5 Numerical Results: 88% reported positively.

3.3.6 Achievement Level: Met

3.3.7 Further Action: No

3.4 Exit Survey: Senior exit survey asking how successful the ATEC program meets its goal of teaching students fundamental concepts, theoretical perspectives, and historical and latest trends in digital content design and development.

3.4.1 Assessment Timeframe: Every graduating class.

3.4.2 Success Criteria: 20 out of 30 will report being successful or very successful in achieving this program goal.

3.4.3 Related Objective(s): Knowledge Base

3.4.4 Results Related To Success Criteria: The criterion was met. 8 out of 11 students reported positively.

3.4.5 Numerical Results: 76% reported positively.

3.4.6 Achievement Level: Met

3.4.7 Further Action: No

3.5 Methods: Embedded multiple-choice and essay exam questions assessing students' abilities to identify effective digital methods for visualizing artistic concepts (ATEC 3317, 3227, 4337).

3.5.1 Assessment Timeframe: Every semester that courses are offered.

3.5.2 Success Criteria: 100 out of 150 students will answer at least 7 out of 10 questions covering this target objective.

3.5.3 Related Objective(s): Identify effective digital methods

3.5.4 Results Related To Success Criteria: The criterion was met. 109 out of 133 students correctly answered at least 7 out of 10 exam questions covering this objective.

3.5.5 Numerical Results: 82% correctly answered at least 7 out of 10 exam questions covering this objective.

3.5.6 Achievement Level: Met

3.5.7 Further Action: No

3.6 Capstone: Capstone Projects in ATEC 4380 Capstone Project course.

3.6.1 Assessment Timeframe: Every semester that course is offered.

3.6.2 Success Criteria: 20 out of 30 students will receive an average or above rating on a rubric that includes identification of effective digital methods.

3.6.3 Related Objective(s): Identify effective digital methods

3.6.4 Results Related To Success Criteria: The criterion was met. 30 out of 33 students received an average or above rating.

3.6.5 Numerical Results: 91% received an average or above rating.

3.6.6 Achievement Level: Met

3.6.7 Further Action: No

3.7 Student evaluations: End-of-semester student self-evaluation ratings of achievement of this goal (ATEC 3317, 3327, 3361, 3363, 4337, 4370).

3.7.1 Assessment Timeframe: Every semester that courses are offered.

3.7.2 Success Criteria: 220 out of 330 students will report being successful or very successful in achieving this program goal.

3.7.3 Related Objective(s): Identify effective digital methods

3.7.4 Results Related To Success Criteria: The criterion was met. 222 out of 249 students reported positively

3.7.5 Numerical Results: 89% reported positively

3.7.6 Achievement Level: Met

3.7.7 Further Action: No

3.8 Projects: Projects in ATEC 2382, 3317, 3327, 3361, 3363, 4337, 4370.

3.8.1 Assessment Timeframe: Every semester that courses are offered

3.8.2 Success Criteria: 280 out of 420 students will receive an average or above rating on rubrics that include originality and demonstration of artistic and technical skills

3.8.3 Related Objective(s): Technology Based Creativity

3.8.4 Results Related To Success Criteria: The criterion was met. 263 out 321 students received an average or above rating.

3.8.5 Numerical Results: 82% received an average or above rating.

3.8.6 Achievement Level: Met

3.8.7 Further Action: No

3.9 Capstone: Capstone Projects in ATEC 4380 Capstone Project course

3.9.1 Assessment Timeframe: Every semester that course is offered.

3.9.2 Success Criteria: 20 out of 30 students will receive an average or above rating on a rubric that includes originality and demonstration of artistic and technical skills.

3.9.3 Related Objective(s): Technology Based Creativity

3.9.4 Results Related To Success Criteria: The criterion was met. 30 out 33 students received an average or above rating.

3.9.5 Numerical Results: 91% received an average or above rating.

3.9.6 Achievement Level: Met

3.9.7 Further Action: No

3.10 Student self evaluation: End-of-semester student self-evaluation ratings of this goal (ATEC 2382, 3317, 3327, 3361, 4337, 4370).

3.10.1 Assessment Timeframe: Every semester that courses are offered.

3.10.2 Success Criteria: 280 out of 420 students will report being successful or very successful in achieving course objectives.

3.10.3 Related Objective(s): Technology Based Creativity

3.10.4 Results Related To Success Criteria: The criterion was met. 216 out of 259 students reported positively.

3.10.5 Numerical Results: 83% reported positively.

3.10.6 Achievement Level: Met

3.10.7 Further Action: No

3.11 Exit survey: Senior exit survey asking how successful the ATEC program meets its goal of fostering students' abilities to create original digital works that demonstrate their artistic and technical skills and reflect a high degree of individual expression.

3.11.1 Assessment Timeframe: Every graduating class.

3.11.2 Success Criteria: 20 out of 30 will report being successful or very successful in achieving this program goal.

3.11.3 Related Objective(s): Technology Based Creativity

3.11.4 Results Related To Success Criteria: The criterion was not met. 7 out of 11 students reported positively

3.11.5 Numerical Results: 65% reported positively

3.11.6 Influencing Factors: Only 11 out of the 30 students who graduated in Spring 07 (37%) participated in the exit survey and the survey result may not reflect graduates' opinions accurately.

3.11.7 Achievement Level: Not Met

3.11.8 Further Action: Yes

3.12 Class presentations: Class presentations and written reports/documentations in ATEC 2382, 3317, 3327, 3361, 3363, 4337, 4370.

3.12.1 Assessment Timeframe: Every semester that courses are offered.

3.12.2 Success Criteria: 280 out of 420 students will receive an average or above rating on rubrics that include critical thinking and communication skills.

3.12.3 Related Objective(s): Critical Thinking and Communication Skills

3.12.4 Results Related To Success Criteria: The criterion was met. 258 out 321 students received an average or above rating.

3.12.5 Numerical Results: 80% received an average or above rating.

3.12.6 Influencing Factors: Data for ATEC 3363 was not provided by the instructor.

3.12.7 Achievement Level: Met

3.12.8 Further Action: No

3.13 Design documents and proposals: Design documents and proposals in ATEC 3351

3.13.1 Assessment Timeframe: Every semester that course is offered.

3.13.2 Success Criteria: 20 out of 30 students will receive an average or above rating on a rubric that includes critical thinking and communication skills.

3.13.3 Related Objective(s): Critical Thinking and Communication Skills

3.13.4 Results Related To Success Criteria: The criterion was met. 28 out 31 students received an average or above rating.

3.13.5 Numerical Results: 90% received an average or above rating.

3.13.6 Achievement Level: Met

3.13.7 Further Action: No

3.14 Self evaluations: End-of-semester student self-evaluation ratings of this goal (ATEC 2382, 3317, 3327, 3351, 3361, 4337, 4370).

3.14.1 Assessment Timeframe: Every semester that courses are offered.

3.14.2 Success Criteria: 280 out of 420 students will report being successful or very successful in achieving course objectives.

3.14.3 Related Objective(s): Critical Thinking and Communication Skills

3.14.4 Results Related To Success Criteria: The criterion was met. 219 out of 252 students reported positively.

3.14.5 Numerical Results: 88% reported positively.

3.14.6 Achievement Level: Met

3.14.7 Further Action: No

3.15 Exit survey: Senior exit survey asking how successful the ATEC program meets its goals of fostering students' abilities to explain aesthetic and technical merits of their works and others.

3.15.1 Assessment Timeframe: Every graduating class.

3.15.2 Success Criteria: 20 out of 30 will report being successful or very successful in achieving this program goal.

3.15.3 Related Objective(s): Critical Thinking and Communication Skills

3.15.4 Results Related To Success Criteria: The criterion was met. 8 out of 11 students reported positively.

3.15.5 Numerical Results: 77% reported positively.

3.15.6 Achievement Level: Met

3.15.7 Further Action: No

3.16 Capstone: Capstone Projects in ATEC 4380 Capstone Project course.

3.16.1 Assessment Timeframe: Every semester that course is offered.

3.16.2 Success Criteria: 20 out of 30 students will receive an average or above rating on a rubric that includes holistic applications of knowledge and skills.

3.16.3 Related Objective(s): Apply skills to construct creative projects

3.16.4 Results Related To Success Criteria: The criterion was met. 30 out 33 students received an average or above rating

3.16.5 Numerical Results: 91% received an average or above rating

3.16.6 Achievement Level: Met

3.16.7 Further Action: No

3.17 Exit survey: Senior exit survey asking how successful the ATEC program meets its goal of providing students with abilities to construct creative projects by applying the knowledge and skills that they have gained in the program.

3.17.1 Assessment Timeframe: Every graduating class.

3.17.2 Success Criteria: 20 out of 30 will report being successful or very successful in achieving this program goal.

3.17.3 Related Objective(s): Apply skills to construct creative projects

3.17.4 Results Related To Success Criteria: The criterion was not met. 7 out of 11 students reported positively.

3.17.5 Numerical Results: 64% reported positively.

3.17.6 Achievement Level: Met

3.17.7 Further Action: No

3.18 Alumni tracking: Tracking alumni honors, awards, and achievements.

3.18.1 Assessment Timeframe: Every semester.

3.18.2 Success Criteria: Reports of local and national recognitions.

3.18.3 Related Objective(s): Apply skills to construct creative projects

3.18.4 Results Related To Success Criteria: 10 ATEC BA students graduated as Cum Laude

1 ATEC BA student graduated as Magna Cum Laude

An ATEC BA student was selected for a competitive internship program at a computer animation production company, Janimation.

3.18.5 Achievement Level: Partially Met

3.18.6 Further Action: Yes

5. Closing the Loop:

5.1 Implementing new admission procedure: Currently all the applicants who meet the UTD admission criteria and who want to major in Arts and Technology are accepted into the ATEC

BA program. We are in a process of establishing a new admission procedure to control the number and quality of majors development.

5.1.1 Related Objective(s): Knowledge Base; Identify effective digital methods; Technology Based Creativity; Critical Thinking and Communication Skills; Apply skills to construct creative projects

5.1.2 Responsible Person: Faculty members

5.1.3 Target Date: Fall 2008

5.1.4 Priority: High Priority

5.2 Ensuring prerequisites: We are in a process of sequencing undergraduate courses and establishing prerequisites so that instructors will be able to expect a narrower range of skill levels and knowledge levels among students in each course.

5.2.1 Related Objective(s): Knowledge Base; Identify effective digital methods; Technology Based Creativity; Critical Thinking and Communication Skills; Apply skills to construct creative projects

5.2.2 Responsible Person: Faculty members and advising staff Faculty members and advising staff

5.2.3 Target Date: Fall 2007

5.2.4 Priority: Medium Priority

5.3 Establishing additional 2000 & 3000 level courses: To serve the diverse interests of the students in the program and prepare them for upper level courses, we are developing additional 2000 & 3000 level courses.

5.3.1 Related Objective(s): Knowledge Base; Identify effective digital methods; Technology Based Creativity; Critical Thinking and Communication Skills; Apply skills to construct creative projects

5.3.2 Responsible Person: Faculty members

5.3.3 Target Date: Spring 2008

5.3.4 Priority: High Priority

5.4 Obtaining permanent course numbers for ATEC 4370: In the past two years we have developed new courses using ATEC 4370 Topics in Art and Technology course. We are in a process of obtaining new & permanent course numbers and titles for Virtual Environments, Sound Design, Special Effects, Advanced 3D Modelings, and Art & Technology Workshops courses, which have been offered as ATEC 4370.

5.4.1 Related Objective(s): Knowledge Base; Identify effective digital methods; Technology Based Creativity; Critical Thinking and Communication Skills; Apply skills to construct creative projects

5.4.2 Responsible Person: Faculty members

5.4.3 Target Date: Spring 2008

5.4.4 Priority: Medium Priority

5.5 Instructor expectations: Make sure that in all courses, instructors are explicit about their learning objective expectations including exam reviews and explanations of assignments.

5.5.1 Related Objective(s): Knowledge Base; Identify effective digital methods; Technology Based Creativity; Critical Thinking and Communication Skills; Apply skills to construct creative projects

5.5.2 Responsible Person: Faculty members teaching ATEC courses

5.5.3 Target Date: Fall 2007

5.5.4 Priority: Medium Priority

5.6 Exit survey: Improve graduating senior exit survey's response rate.

5.6.1 Related Objective(s): Knowledge Base; Identify effective digital methods; Technology Based Creativity; Critical Thinking and Communication Skills; Apply skills to construct creative projects

5.6.2 Related Measure(s): Exit Survey; Exit survey; Exit survey; Exit survey; Alumni tracking

5.6.3 Responsible Person: Graduate and Undergraduate Advisors

5.6.4 Target Date: Fall 2007

5.6.5 Priority: High Priority

5.7 Alumni tracking: Track and survey alumni regularly to determine how well the program prepared them for their roles and responsibilities wherever they are. Set up processes and procedures for tracking and convincing alumni to keep in touch with the program.

5.7.1 Related Objective(s): Apply skills to construct creative projects

5.7.2 Related Measure(s): Alumni tracking

5.7.3 Responsible Person: Undergraduate Advisors

5.7.4 Target Date: Fall 2007

5.7.5 Priority: High Priority

6. Analysis:

6.1 Program/Unit Strengths:

6.1.1 Objectives/Outcomes Exceeded or Met: The results of the end-of-semester student self-evaluation (ATEC Course Survey) and instructors' evaluations are 80% - 91% positive on the five objectives and indicate that we met all the objectives.

6.2 Program / Unit Weaknesses:

6.2.1 Objectives / Outcomes Partially or Not Met: 7 out of the 11 students who participated in the senior exit survey (64%) reported that the ATEC program met its goals of fostering students' abilities to create original digital works that reflect a high degree of individual expression (Objective No. 3) and to construct creative projects by applying the knowledge and skills that they have gained in the program (Objective No. 5). 64% is lower than our expectation. However, only 11 out of the 30 students who graduated in Spring 07 (37%) participated in the exit survey and the survey result may not reflect graduates' opinions accurately.

6.3 Other Areas Needing Improvement: We need to improve how we conduct the exit survey so that we will have a better participation rate.

Tracking and surveying alumni regularly allow us to determine how well the program prepared our students for their roles and responsibilities wherever they are. We need to set up processes and procedures for tracking and convincing alumni to keep in touch with the program.

7. Report:

7.1 Executive Summary: The interdisciplinary program in Arts and Technology (jointly created by the School of Engineering and Computer Science and Arts and Humanities) is devoted to studying and fostering the interaction of visual art, music, video, and narrative with the new media that have emerged from the convergence of computing and media technologies.

The objective of the Arts & Technology Program is to prepare students generally to understand and succeed in the media-rich, technologically sophisticated world of the 21st century. The core knowledge in this program draws from the convergence of research in the humanities, the creative and performing arts, visual communications design, computer science, and engineering. Students are prepared for a wide range of current and future, careers that demand the ability to fuse visual images, verbal communication, creative thinking, and technological expertise.

Rapid Growth

The Bachelor of Arts in Arts and Technology has been offered by the School of Arts and Humanities since January of 2004. In that time it has grown to 454 majors and provides service courses to many other majors in the University. Many majors in Computer Science, Engineering, Arts and Performance and Management elect courses (Digital Sound Design, Computer Game Design, Digital Imaging, and Animation.) The rapid demand for courses in the Arts and Technology (ATEC) has demanded rapid course development, intensive faculty recruitment, development of new classrooms equipped with advanced technologies, intensive advising services and an increase in management support, laboratory support and technical staff.

Program Assessment

In 25 regularly scheduled ATEC courses offered in Spring 2007 semester, 447 students participated in the ATEC Course Survey (end-of-semester self-evaluation). The result of the survey is the following:

- * 88% reported that the course objectives were clearly stated in the syllabus.
- * 80% reported that the grading system was clearly explained in the syllabus.
- * 90% reported that the course objectives had been met.
- * 89% reported that they had learned fundamental concepts, theoretical perspectives, and historical and latest trends in digital content design and development.
- * 84% reported that they had gained the ability to identify and evaluate effective digital methods for visualizing artistic and technical concepts.
- * 81% reported that they had created original digital works that demonstrate their artistic and technical skills and reflect a high degree of individual expression.
- * 87% reported that the instructor and students in the course discussed the aesthetic and technical merits of the works created in the course.

The result seems to indicate our students feel successful in achieving our program objectives.

As a new degree program the faculty is actively involved in program design, re-design and assessment. This process occurs during regular faculty meetings and through a faculty discussion on-line addressing individual topics. Advising was identified as a critical element in the success of an interdisciplinary program. In 2006 the program hired two full-time academic advisors who meet with our majors in advance of registration (each semester and by scheduled appointment at students' request.) Advisors also meet with majors at the beginning of the semester prior to graduation. Both of our advisors have Masters degrees in academic advising and perform exceptional services to our undergraduates.

The faculty have identified issues relating to admission requirements, the need for additional course development at the 2000 and 3000 level; the enforcement of prerequisites for courses, and the creation of an undergraduate internship program.

The faculty have agreed that a stronger correlation must be made between course objectives and class assignments and that exit interviews of current student and alumni must be improved.

The faculty has begun to address each of these matters and will have recommendations for action by October 2007.

7.2 Top 3 Program/Unit Accomplishments: We anticipate increases in course offerings in 2007 due to the addition of five new faculty members (Game Design, Animation, Virtual Environments, and Emerging Media and Communications.) Faculty recruitment in this area remains problematic because of the demand for and exceptional opportunities for professionals in the areas of digital content design and development.

The ATEC program holds an Annual ATEC Town Hall meeting for all ATEC majors. All faculty and ATEC students attend these meetings. Students are invited to submit items for discussion in advance, as well as during the meeting. These meetings last for two hours are well attended and generate action items for the faculty and staff.

7.3 Research Activities or Publications: The ATEC faculty are active in sponsored research projects and in the development of new models for games, new media publications and On-Line Worlds research.

Dean Terry has been active in the development of the Emerging Media and Communications area which is a direct result of this research. Terry's funded projects include the creation of Virtual Therapy Environments for Physicians and Patients in Second Life. (Center for Brain Health). He also is developing a presence for Texas Instruments in Second Life. Dean Terry's documentary video *Subdivided* was shown on KERA, (Dallas PBS).

Dr. Mihai Nadin conducts research on the impact of gaming on the anticipatory capability of the aging (SENELUDENS) project.

Dr. Thomas Linehan is conducting research for the U.S. Army TRADOC-Futures Command and for the U.S. Joint Forces Command (INTEL/Training). Both research projects include the development of multi-player games to be used in troop training. (advanced undergraduates as well as graduate students are working on both projects.) ATEC Faculty work closely with industrial partners (Samsung, Raytheon, Lockheed-Martin, Texas Instruments) in the development of joint projects of mutual interests.

Dr. Midori Kitagawa has a book contract to cover her advanced research in Optical Motion-Capture Laboratories and Animation. She is also working on a robotics project that involves in artificial intelligence and motion capture.

7.4 Instructional/Training Activities (presented or received): In the 2006-07 school year, 46 students graduated with a B.A. in Arts and Technology. The program only has been in existence since January 2004. It is anticipated the annual number of graduates in future years will be close to 100. The freshman admission to the BA in Arts and Technology in 2006 was 129. ATEC offers 42 courses and sections each semester. These courses frequently fill to capacity and represent a major teaching effort for our faculty.

7.5 Public Service: The ATEC undergraduate students have been active in local exhibitions as well as in community cultural activities. In 2006 students worked on projects with The Dallas Museum of Art, KERA (PBS Affiliate), Dallas Film and Video Festival, Dallas Film and Video Association 24 hour Video Race (two winning teams), Dallas Women in Film and have been active in research projects with industry. (Texas Instruments, UTD Center for Brain Health and U.S. Army, Training and Doctrine Command (TRADOC).

7.6 Other External Activities: The ATEC program has actively collaborated with the University of Guanajuato and with Monterrey Tech in Mexico in the development of new B.A. degree programs that mirror the Arts and Technology Program at UTD. Both universities are beginning similar degree programs in Fall of 2007. ATEC Faculty are offering a five-week workshop on Motion Capture and Animation at the University of Guanajuato CIMAT from June 15, through July 18, 2007.

7.7 Contributions to UTD: The ATEC Program is a collaboration between the Erik Jonsson School of Engineering and Computer Science and the School of Arts and Humanities. It has strong collaborations with The Center for Brain Health in the School of Brain and Behavioral Science and the School of Management. These collaborations have led to joint instructional and research projects. The interdisciplinary character of the program keeps it well grounded in serving the mission of the University as a whole.

The program held ATEC Showcase, an exhibition of student projects, in Spring Semester (4/12/07). Students submit their class projects to a jury of students and faculty and the selected projects are exhibited each semester. The Showcase materials are archived and provide evidence for student and program performance evaluation. The Showcase is held before a campus-wide, local community audience and prospective employers. It is also

important in the program's recruitment efforts as students from local high schools and community colleges attend.

An Annual Computer Game Conference is organized each year by the Student Game Developers Association (SGDA). This student-directed conference brings in major speakers for a three-day conference. The Association secures corporate support for the conference and attendance is free for all students. Typical attendance at the conference reaches several hundred attendees. The SGDA also organized a Game Development Weekend each semester in the ATEC instructional Labs. Students work for 72 hours straight to develop a game together. These games are reviewed by professionals in the local game industry at the end of each of these weekends.

7.8 Top 3 Program / Unit Challenges: The principal challenge to the ATEC program is to manage its rapid growth and to monitor and insure its quality as it grows. It must have a strong industrial support base and a viable research agenda to help validate its relevance to a rapidly changing workplace.

Growth management includes educational quality, enrollment management, recruitment of outstanding students and faculty and a structure that is responsive to student and society. The on-going assessment of student performance in a creative laboratory of instruction will continue to be our principal challenge.

7.9 Detailed Resources Needed to Improve and Fulfill Mission: The ATEC program has a number of need to fulfill its current mission. A new specially-designed classroom and research facility is required. Immediate needs include:

- * Replace outmoded (now four years old) computer workstations in ATEC 1.102. The computer classroom is scheduled heavily for students enrolled in Computer Animation and Computer Game Design / Development. It is open and in use seven days a week: \$138,000
 - * Complete renovation of ATEC 1.302a to create a Digital Sound Laboratory. Construction is estimated to cost: \$54,000.
 - * Twenty two computer workstations, including software: \$138,000
 - * Convert ATEC 1.706 to a Mobile Content Development Laboratory. This laboratory will be devoted a collaborative project (with Samsung, Erickson, Nokia and Texas Instruments) to design tools for user-created mobile content: 18 computer workstations and server with Mobile Phone development software: \$85,000
 - * Purchase five additional computer workstations and server for ATEC 1.902 (Serious Gaming Development Laboratory) to support on-going Military Training Projects with Army Intelligence and Joint Forces Command: \$23,000
 - * Purchase six computer workstations to support new ATEC faculty members: \$90,000
 - * Renovate ATEC 1.502 to create separate advising offices (in conformance with FERPA requirements for confidentiality): \$12,000
 - * Add six computer workstations to ATEC 1.308 (Open Laboratory for student projects): \$90,000
 - * Upgrade sound and projection system in ATEC Conference Room: \$2,000
- TOTAL REQUEST: \$632,000