**Syllabus: Game Theory (K-5)**

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**Course Description**

Transfer the enthusiasm kids have for video games to the school environment. Using the nine steps of problem solving (patterns, working backward, logic, exhaustive listing, trial and error, meta spectrum, simulations, guess and test, and algebraic reasoning), participants explore innovative game theory in math, science, computer technology and English language arts. The history of games, game development in the classroom, teaching and creating game strategies, game addiction and game design are also covered. Projects are designed for K-5 use and the content applies to many subject areas.

**Course Objective**

Teachers will learn how to find resources available to make and use educational games that their students will enjoy playing while learning required content. Teachers will be able to incorporate the games learned in this course into their daily lessons. The games presented will enhance their repertoire and will motivate their students to perform better in their studies.

**Course Assessment**

Student produced lesson plan of a game: Students will develop an informal lesson plan of an educational game that will incorporate one of the various strategies learned in this course into their classroom. The student will present their educational game, that either they themselves developed or found, that they can use in their classroom. The game, which can be hands on or computer based, will be presented to the class and played. Constructive feedback will be provided by the instructor and fellow classmates.

Create a web based bookmarking catalog of computer games: Students will learn how to use an extremely user friendly web based bookmarking program to organize all the wonderful free game websites available on the computer.

Create a list of 5 books on games: During class various books on games will be presented and discussed. The students will be given class time to research, via the computer, game books available in their specific area of expertise. Through these exercises the students will be able to generate 5 book titles with a brief description. Note: the books do not have to be purchased and presented to the class - just the title and brief description.

Class participation: Participation in class discussions, question and answer sessions, cooperative learning situations, etc., is to be a part of the overall course evaluation as determined by the instructor.

Class attendance: Since this course is of short duration but intensive in nature, it is
important that class attendance be a part of this course evaluation.

Session 1
Date: 03-15-2011
The syllabus and course expectations will be presented and discussed. Former student projects, website lists, and book lists will be discussed and reviewed. We will read and discuss several short articles on the importance of and use of games in the classroom. Games strategies will be explored for various games, such as bingo, matching grid games, I have who has, PowerPoint Jeopardy, Learning wrap-ups, etc…which will be discussed and played. During the session we will also use computers for the following activities: to learn how to use a user friendly web based bookmarking program to organize all the wonderful and free websites available online, to learn how to research and content specific game books, and to learn how to find game websites that can be utilized in the classroom for each teacher’s specific content.

Session 2
Date: 03-16-2011
Games strategies will be explored for various games, such as bingo, matching grid games, I have who has, PowerPoint Jeopardy, Learning wrap-ups, etc…which will be discussed and played. During the session we will also use computers for the following activities: continue to learn how to easily use a web based bookmarking program to organize online websites available, research content specific game books, and find various game websites that can be utilized in the classroom for each teacher’s specific content.

Session 3
Date: 03-18-2011
Games strategies will be explored for various games, such as bingo, matching grid games, I have who has, PowerPoint Jeopardy, Learning wrap-ups, etc…which will be discussed and played. During the session we will also use computers for the following activities: continue to learn how to easily use a web based bookmarking program to organize online websites available, research content specific game books, and find various game websites that can be utilized in the classroom for each teacher’s specific content.

Session 4
Date: 03-22-2011
Games strategies will be explored for various games, such as bingo, matching grid games, I have who has, PowerPoint Jeopardy, Learning wrap-ups, etc…which will be discussed and played. During the session we will also use computers for the following activities: continue to learn how to easily use a web based bookmarking program to organize online websites available, research content specific game books, and find various game websites that can be utilized in the classroom for each teacher's specific content.
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Session 5  
Date: 03-23-2011

Students will print out a copy and present their list of 5 books with a brief description to the class for review and discussion. Games strategies will be explored for the various games which will be discussed and played. During the session we will also use computers for the following activities: continue to learn how to easily use a web based bookmarking program to organize online websites available and find various game websites that can be utilized in the classroom for each teacher’s specific content.

Session 6  
Date: 03-25-2011

Games strategies will be explored for the various games which will be discussed and played. During the session we will also use computers for the following activities: continue to learn how to easily use a web based bookmarking program to organize online websites available and find various game websites that can be utilized in the classroom for each teacher’s specific content.

Session 7  
Date: 03-29-2011

Students will print out a copy and present their list of websites from their web based bookmarking program to the class for review and discussion. Games strategies will be explored for the various games which will be discussed and played. During the session we will also use computers for the following activities: continue to learn how to easily use a web based bookmarking program to organize online websites available.

Session 8  
Date: 03-30-2011

Games strategies will be explored for the various games which will be discussed and played. During the session we will also use computers for the following activities: continue to learn how to easily use a web based bookmarking program to organize online websites available.

Session 9  
Date: 04-01-2011

Students will present their game to the class and print out a copy, if possible, for review and discussion. Games strategies will be explored for the various games which will be discussed and played.
Student Materials

Total Material Cost: $0 (Total Required: $0)

All students are expected to attend classes regularly and promptly, and for the duration of the scheduled instructional time. Individual instructors will decide the optimum time for taking attendance and may penalize for habitual lateness of absence. Repeated absences may result in a grade of "F" for the course.

Students who withdraw from a course must do so in writing. Nonattendance does not constitute an official withdrawal.

Educators taking courses for credit are required to complete assignments for evaluation outside of direct contact hours. These assignments may include lesson plans, readings, papers, projects, presentations or other work relating the course content to classroom application. Most final course projects will be due two weeks after the final class meeting. An official grade report will be provided automatically 10 to 15 business days after projects are submitted.

Courses for credit qualify for PA Act 48 standards; non-credit coursework does not qualify. A three credit class will be posted as Act 48 90 hour equivalency. Students must supply their unique PA Act 48 Professional Personal ID number and complete the request form, distributed in class, to have their credit course posted. Act 48 posting to the PA Department of Education occurs at the end of each month, after final grading for coursework is complete.

The University of the Arts reserves the right to cancel classes due to low enrollment, reschedule any course or to change the instructor. If a cancellation should occur, students will be notified prior to the start of classes and will have the option of taking another course or receiving a full refund. The University is not responsible for supplies that may be purchased in advance.