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|  <p>University of Windsor</p> | <p>School of Computer Science</p> <p><u>Winter 2018</u></p> <p>0360-450-01</p> <p>Multimedia System Development</p> |
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INSTRUCTOR: *Dr. Imran Ahmad*

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 Blackboard: <https://blackboard.uwindsor.ca>

(Please note that all of the communication will be through Blackboard)

LECTURE: Wed. 10:00 AM – 12:50 PM in LT 3107

OFFICE HOURS: Wed: 12:50 PM – 01:20 PM in my office or LT 3107; and
 Thu: 11:00 AM – 12:30 PM in my office. Other times, by **appointment ONLY**.

TEXT: (Required) Sham Tickoo, Autodesk Maya 2018 A Comprehensive Guide, 10th Edition
 CADCIM Technologies; ISBN: 978-1-942-68997-3

PREREQUISITES:

0360-350 or consent of instructor.

COURSE OBJECTIVES AND OVERVIEW:

The aim of this course is to discuss and learn technologies for the development of multimedia application, modeling and development of standalone and/or networked multimedia systems, and computer generated 3D animation. Please note that the learning outcomes are posted separately on Blackboard and my personal webpage at the link: <http://imran.myweb.cs.uwindsor.ca/courses/60-550/>.

Emphasis will be on the concepts related to 3D computer modeling and computer generated 3D animation. Autodesk Maya 2018 will be used for modeling/animation.

COURSE PLAN:

Course has various components as described below:

- **ASSIGNMENTS / MINI PROJECT:** There will be up to 8 homework assignments/mini projects involving different aspects of modeling/animation using Maya. Typically homework assignments will be progressive in nature, i.e., will build on material you have completed in previous homework. Therefore, it will be in your interest to properly finish a given task. Since visualization is the main component of this course, aesthetics is an important part of it. Students are expected to make it their general habit in this course to properly organize their material and keep it for later reference/use. There will be a 25% per late day penalty (including weekends as well) for late submissions.
- **QUIZZES / EXAMS:** There will be two quizzes during the term. The quizzes may be theoretical, written or hands-on or a combination of all. Failure of successful completion and **in-time** submission of quiz will automatically result in 50% reduction of the score whereas score in rest of the work will be assessed on the extent and type of work completed. **There will be NO makeup quiz!** If you miss first quiz, its points will be added to the next quiz but **ONLY** for valid and verifiable reasons that must be provided to me as a written document (e.g., **have your doctor fill up “UWindsor Student Medical Certificate”, available from the course web site / Blackboard site**). In the absence of such a proof, no makeup quiz will be allowed.

A doctor's note stating that "patient states I am sick" or "had headache" or something similar without any professional medical opinion/assessment will **NOT** constitute a valid reason and will **NOT** be accepted. **Please note that the instructor reserves the right to REJECT a medical note.** Unless mentioned otherwise, all of the quizzes will be closed book, closed notes and closed neighbors. If you miss the second quiz, there will be a comprehensive makeup quiz (theoretical and/or hands-on and only for authorized cases with valid reasons) on **Friday Apr. 22, 2018 @ 10:00 AM.** There will be no makeup of the makeup quiz. If you miss scheduled and the makeup quizzes but can provide a satisfactory evidence, score of the taken quiz and other submitted material may be used to compute the final percentage for the missing quiz. In such situations, student **MUST** have passed at least one quiz.

- **PROJECT:** A very important component of this course is a semester long group project. Further details, including requirements and dates of various milestones, will be in a separate handout. It is expected that projects will be "*design and implementation oriented*" and will involve substantial efforts and time.

Late submission of project or any of its components will be subjected to a 25% per late day penalty. After four days (including weekend days), there will be no credit for the project or that component. Regardless of the points for the project, you **MUST** submit the project to receive a final grade. Absence or non-participation from project presentation will automatically result in zero for that presentation.

Peer evaluation will be an important component of the project evaluation and will be considered in assigning final project marks to individuals in a group.

TOPICS TO BE COVERED:

Following is a tentative list of topics to be covered and includes both the theoretical as well as hand-on components:

- Introduction to Animation and Maya
- Basics of 3D Modeling: modeling paradigms
- Modeling techniques
- Animation techniques
- Keyframe animation
- Motion path animation
- Inverse kinematics (IK)
- Dynamics and particles
- Shading and Materials
- Lighting and its use in modeling and animation
- Driven key animation and constraints
- Mel expressions in Maya
- Mel scripting (time permitting)

ATTENDANCE:

Though not required, attendance is important. Lots of details and information will be provided during the lectures. Lectures will also include necessary information related to the assignments/project. You are responsible for obtaining any of the missing information.

POLICY ON CHEATING:

Unless mentioned otherwise, you are expected to do all of your work on all components of this course (assignments, exams/quizzes, etc.) individually, without the help of others. In cases of suspected cheating, you will get **zero points** for that homework assignments, quiz or question in exam. In your project or assignments, you may use additional material (textures, models, audio, etc.) from alternate sources. However, it is **your responsibility** to make sure that either the terms of use permit you to use it in your work or you have exclusively obtained permissions by contacting the author/owner of the information. Remember that **royalty free doesn't mean copyright free.** Likewise, if you can obtain information through **Google** or any other search engine or site presented by the search engines, it **doesn't mean that you are free** to use it. It may still be copyrighted. For any violation of copyright or term of use agreements or plagiarism, instructor **WILL NOT** negotiate with student(s) and will assign zero marks to the entire component and, as per Senate policy, will forward their names to the director of the School of Computer Science to initiate proceedings for necessary disciplinary action.

Each submission (final project and/or homework assignment) **MUST** include a declaration to the effect that “this is a student project and it does not violates any copyright law”. For the final project, this declaration **MUST** be part of **both** the **animation** and the **written** documentation. This declaration in the documentation for the project **MUST** be signed by **EACH MEMBER** of the project team. In the absence of this declaration, homework assignment and/or project may **NOT** be accepted and may result in an assignment of zero marks.

TEACHING EVALUATION:

Student Evaluation of Teaching (SET) forms will be administered during the last two weeks of the class schedule.

EVALUATION SCHEME:

The points distribution for various components is as follows:

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|----------------------------|------|---|
| Assignments/ Mini-projects | 12 % | |
| Quizzes | 42 % | (Feb. 28, and Mar. 28, 2018) |
| Project: | 46 % | (Due: Slot 14: Thursday Apr. 12, 2018 @ 12:00 PM) |

CONVERSION OF MARKS

The University of Windsor uses a 100% grading system. Therefore, the final grades consists of raw scores (numeric values) and all grades below 50% are considered failures. For more details, please check the [University of Windsor Senate policy document: Grading and Calculation of Averages](#)

There will be NO incomplete grade given under any circumstances.

NOTES:

1. Emails originating **ONLY** from the `uwindsor.ca` domain will be answered.
2. Frequently various pieces of information, announcements and presentation slides will be posted on the course web page. You are advised to keep on checking it for latest information. It is important to remember that the course web page is for your convenience **ONLY** and is not intended to support absence from class.
3. Important dates to remember:
 - Jan. 17, 2018: Last add/drop day (full tuition refund).
 - Feb. 17–25, 2018: Family Day & Study Week, no classes
 - Mar. 14, 2018: Last day for voluntary withdraw from the course.
 - Mar. 29, 2018: Study day (no classes).
 - Apr. 06, 2018: Last day of classes.

“Once the game is over, the king and the pawn go back into the same box” (Italian Proverb)