

**Spring Quarter 2014 Syllabus**

**Course Title:** Intermediate 3D Modeling

**Course Number:** CA3449

**Course Description:** Using a 3D environment, intermediate modeling techniques and concepts are elaborated. Modeling as character design and development is emphasized while refining techniques in lighting, camera, and textures.

**Pre-Requisite(s):** CA2429 Introduction to 3D Modeling

**Co-Requisite(s):** None.

**Meeting Times and Location:** Tuesdays and Thursdays, 11am to 2pm, Room 230 in LaSalle building

**Instructor Name & Contact Information:** Shannon Gilley  
Phone: 612-332-3361 ext. 6919  
Email: [sgilley@aii.edu](mailto:sgilley@aii.edu)

If you are unable to reach me, you may call your Academic Director or Program Coordinator at 612-656-7600.  
My mailbox is in room 341, in the cubby under my last name.

**Office Hours:** *Mondays and Wednesdays, 10am to 11am, LaSalle 303, or by appointment at [sgilley@aii.edu](mailto:sgilley@aii.edu)*

**Course Length:** 11 Weeks

**Instructional Contact Hours:** 60 (20-lecture, 40-lab)

Quarter Credit Hour

All course work at Ai Minnesota is measured in quarter credits. One-quarter credit is awarded for each 10 classroom contact hours of lecture, 20 classroom contact hours of laboratory instruction, or 30 contact hours of internship. One classroom contact hour is defined as 50 minutes within a 60-minute period.

*A quarter credit hour is an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:*

- (1) One hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for 10-12 weeks, or the equivalent amount of work over a different amount of time; or*
- (2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.*

**Credit Value:** 4 Quarter Credits

**Course Competencies:** Students will:

1. **Utilize 3D coordinate systems, construct 3D models and perform mathematical computations**
  - a. Analyze multiple axes geometric representation of a three dimensional image
  - b. Construct simple geometric shape in X, Y and Z axes using computer animation software
  - c. Construct complex models using various modeling techniques
  - d. Quantify grid size to establish perspective views
  - e. Apply appropriate pre-planning techniques
2. **Develop critical ideas for surface treatment, lighting and motion of 3D models**
  - a. Apply natural conditions in developing surface treatment
  - b. Explore the effect of light in various surface treatments
  - c. Apply various lighting techniques to create a desired mood in computer animation
  - d. Create a 3D model
  - e. Integrate the basic visual elements of design (light, shape, texture, composition and color) into the complexity of three-dimensional space
  - f. Apply advanced knowledge of unity, variety, contrast, dominance, appropriateness, balance and harmony to three-dimensional space

**Required Materials:**

- Digital Tutors account (subscription available free to current Ai students; contact Steve Liska in the library for details)
- Drawing supplies

**Technology Needed:**

PC/Mac lab, Internet access, Digital Tutors access, Maya 2014

**Instructional Methods & Resources:**

This course will challenge you to develop professionally-relevant knowledge and skills. Course information will be presented in many forms, including lecture, class discussion, demonstration, case studies, simulations, field projects, and studio or lab projects. Students will use library and community resources, including research and reference materials, gallery exhibitions, industry events, and guest speakers. Materials can be obtained from other libraries using the interlibrary loan program.

**Estimated Homework Hours:**

At least 8 hours per week. There is no way to anticipate how many hours it takes to come up with a great idea, so get your work done early. Procrastination will not help you! Homework will primarily consist of projects that focus on implementing professional-level texturing, shading, and lighting in a variety of scenes.

**STUDENT EVALUATION AND GRADING**

Successful professionals require a supportive environment. In-class discussions and/or critiques of other students' work and ideas is a chance to help each other grow as conceptual and critical thinkers.

Student	Course Activities	Points Distribution	GRADING SCALE
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<b>Evaluation:</b>	Hard-surface references	10%	<b>A</b>	<b>100 – 93%</b>	MILESTONE: This is a milestone course. This means students must earn a final grade of C or better to pass.
	Hard-surface mid-project assessment	20%	<b>A-</b>	<b>92 – 90%</b>	
	Hard-surface final	20%	<b>B+</b>	<b>89 – 87%</b>	
	Organic references	10%	<b>B</b>	<b>86 – 83%</b>	
	Organic mid-project assessment	20%	<b>B-</b>	<b>82 – 80%</b>	
	Organic final	20%	<b>C+</b>	<b>79 – 77%</b>	
	<b>TOTAL</b>	<b>100%</b>	<b>C</b>	<b>76 – 73%</b>	
			<b>C-</b>	<b>72 – 70%</b>	
		<b>D+</b>	<b>69 – 67%</b>		
		<b>D</b>	<b>66 – 60%</b>		
		<b>F</b>	<b>Below 60%</b>		

The academic programs at Art Institutes International-Minnesota are designed to prepare you for your future career. Your future will be wrought with deadlines and time clocks, so this class will require real world punctuality. If you are absent or late for class, you will not be able to make up points associated with in-class activities, including quizzes, tests, presentations, and critiques. Tardy students are responsible for making their presence known to the instructor at an appropriate time. (See the Attendance Policy below for more information.)

Homework and other preparatory work must be done before class meets and is due immediately at the beginning of class, unless the instructor publishes other requirements.

## A WORD ON DEADLINES

### Late work is not acceptable.

In the business world, deadlines are rarely pushed back. Work submitted after deadline will earn 0 points. Your instructor may make an exception in cases of severe personal illness or death in the family. Technology, transportation, relationship, and childcare problems are not the basis for an exception.]

You, the student, are expected to come to class prepared to discuss the assigned reading material. These activities are designed to motivate and reward you for reading and understanding the concepts and terms. In class, we will build on your knowledge gained through the reading with discussions and activity. Class discussion and your individual learning are improved when the reading is completed before the required class.

Because group effort may be required, attendance is mandatory. Excused absences may be permitted, but students are expected to let the instructor know in advance. If you miss a particular class, it is also your responsibility to contact a peer (or peers) to get notes and any assigned work.

You may be evaluated individually and as a member of a team on a variety of learning experiences. Different testing methods afford you diverse opportunities to demonstrate your skills and knowledge, including field assignments, tests, presentations, papers, projects, quizzes and more. Final grades will be determined by scores on your individual assignments, assessments, and classroom participation. Your final grade may also be influenced by group-based activities, including peer evaluations.

If you disagree with a grade in this course, you may take these steps:

Step 1. Make an appointment with me to discuss your situation. Bring your graded work, the assignment sheet

- and this syllabus to the meeting. If you feel the issue is not fully addressed, proceed to
- Step 2. Submit a written appeal to me, explaining why you believe your grade is wrong. You should justify your opinion with information from the assignment sheet and/or syllabus. If you feel the issue is not fully addressed, proceed to
- Step 3. Make an appointment to discuss your concerns with your Department Director or Program Coordinator. If you feel the issue is not fully addressed, proceed to
- Step 4. Submit a written account to the Dean of Academic Affairs. The written account should indicate your name, phone number, and ID#, and discuss the steps you have taken to remedy the situation. The Dean will refer your appeal to the Appeals Committee. Be prepared to produce your graded work, the assignment sheet and this syllabus.

## ACADEMIC POLICIES

### Disability Services

The Art Institutes International Minnesota provides accommodations to qualified students with disabilities. The Disability Services office assists qualified students with disabilities in acquiring reasonable and appropriate accommodations and in supporting equal access to services, programs and activities at the Art Institutes International Minnesota.

Students who seek reasonable accommodations should contact Katie Lane, Student Support and Disability Services Coordinator, at 612-656-6866 or [kylane@aii.edu](mailto:kylane@aii.edu), and notify her of their specific limitations and, if known, their specific accommodations. Students may be asked to supply medical documentation of the need for accommodation.

Classroom accommodations are not retroactive, but are effective only upon the student sharing approved accommodations with the instructor. Therefore, students are encouraged to request accommodations as early as feasible with the Disability Services Coordinator to allow for time to gather necessary documentation. If you have a concern or complaint in this regard, please contact Pam Boersig, Dean of Student Affairs, in Pence 209, 612-656-6865. Complaints will be handled in accordance with the school's Internal Grievance Procedure for Complaints of Discrimination and Harassment.

### Equal Education Opportunity Policy

The Art Institutes International Minnesota does not discriminate on the basis of race, color, national origin, sex, gender, sexual orientation, disability, age, religion, genetic marker, or any other characteristic protected by state, local or federal law, in our programs and activities.

### Student Assistance Program

The college provides confidential short-term counseling, crisis intervention, and community referral services through the Talk One2One Student Assistance Program (SAP) for a wide range of concerns, including relationship issues, anxiety, family problems, loneliness, depression, and substance abuse. Services are free, confidential, and available 24 hours a day, 7 days a week at 888-617-3362.

The Student Affairs office also offers programs on mental health-related topics each quarter. If you have any questions regarding counseling services, please contact Katie Lane, Student Support and Disability Services Coordinator at 612-656-6866 or [kylane@aii.edu](mailto:kylane@aii.edu).

## **Attendance**

Regular, on-time attendance is both courteous and professional. The Art Institutes International Minnesota expects students to demonstrate professionalism by attending all classes as scheduled, arriving on time, and remaining for the full duration of the class. Outside employment should not be scheduled during class hours.

Students should be aware that even if there is no “attendance” grade per se for a class, it is difficult to succeed in class without regular, on-time attendance. Individual faculty may determine the impact, if any, of absences on grades. The Art Institutes International Minnesota supports the attendance policy for each class as it is described in the syllabus. The full AiM attendance policy is found in the Student Handbook, which can be accessed through the Student Portal.

## **Academic Dishonesty**

At the Art Institutes International Minnesota, plagiarism is a cumulative offense; each act of plagiarism is documented in the student’s academic record until degree completion. Violations of this policy will be handled in accordance with the disciplinary procedures outlines in the Student Code of Conduct Policy.

Examples of plagiarism include paraphrasing an original document or piece(s) of an original document and not citing the original author’s name and publishing year, using direct quotes from an original document and not citing the original author’s name and year, and using written documents, still or moving images, original ideas, research information, audio samples and music clips, and failing to cite the original author’s name and publishing year.

Cheating is the action to deceive or alter the perception regarding the author or originator of student work and is a violation of the Student Code of Conduct. Cheating includes the duplication of written or electronic assignments, exams or documents either in whole or in part and submitted as an original piece of work; the exchange of answers with others either giving answers or receiving answers during an in-class assignment, test or exam, or take-home assignment or exam.

Typical disciplinary sanctions for a first offense of plagiarism or cheating includes automatic failure of the assignment/exam with no opportunity to re-do or make up the plagiarized/cheating work. Sanctions for the second offense include automatic failure of the course. Subsequent incidents will result in dismissal from the school.

## **CLASSROOM COURTESIES AND PROFESSIONAL EXPECTATIONS**

### ***Collaboration and Communication***

The learning environment should provide a business-like approach to getting the job done, so any behavior that would be deemed as inappropriate for the typical work environment will put the student at risk. Examples include disrespectful language, passive-aggressive behavior, lack of commitment to personal or team success, and any other behaviors that disrupt the learning environment for other students. Additionally each team member is responsible for the academic integrity of the group.

**YOU MUST USE YOUR COLLEGE EMAIL ACCOUNT**, or forward your college email to another personal account. You must be able to accept and respond to email on a daily basis. You are responsible to know college policies and procedures as communicated through the college email.

### ***Academic Resources***

**YOU ARE ACCOUNTABLE FOR REQUIRED ACADEMIC SKILLS.** Successful students possess course-appropriate reading comprehension, critical thinking, research, writing, presentation, and communication skills. If you or your instructor determine that you have a need for additional resources beyond those offered in class, there are several options available to you.

**The Academic Achievement Center** is located in LaSalle room 105. The Academic Achievement Center houses peer tutors and faculty tutors in program areas and general education, and offers skills workshops as well as facilities for study groups.

If you have any questions regarding the AAC, tutoring, study groups or skill workshops, please contact Tim Storsved, Director, Academic Achievement Services, at [tstorsved@aii.edu](mailto:tstorsved@aii.edu), or stop by his office in the Pence building, room P219.

**The Interior Design Studio** houses Interior Design peer tutors and faculty tutors. The studio is located in room 423, on the 4th floor of the LaSalle building.

Peer tutors assist students with subject/content area academic support, as well as, study skills and organizational tips. Peer tutors are current AIM students in good academic standing (a CGPA of 3.5) with a desire to assist others in their academic progress. All peer tutors receive mandatory tutor training.

Students (tutees) who seek academic support may visit each of the centers to receive tutoring assistance in a wide variety of subject areas. Each tutor schedule (located outside of the center door) identifies the tutor and their specific areas of expertise.

**Academic Advising** is offered in two formats: The **New Student Academic Advisor**, Julie Ogren, is located in room 341 in the LaSalle building—she is there for new students and first-quarter students. Julie's contact information is:

**(612) 656-7677**  
[jogren@aii.edu](mailto:jogren@aii.edu)

Academic Advisors at the Advising Center – to be contacted through email or by phone – are available for continuing students and to support your successful completion of this course:

**Daniel Greenfield, Academic Advisor**  
Toll Free: 1-855-861-2151  
[dgreenfield@aii.edu](mailto:dgreenfield@aii.edu)

You are also responsible for executing tutorial recommendations made by your instructors. Remember, your instructors and Academic staff are here to help you find the resources you need.

**The Library** is located on the second floor of the LaSalle building. The library is open seven days a week for a total of 79 hours per week. The collection is comprised of books, newspapers, journals and magazines, videos, DVDs, and CDs that support the school's curricula. The collection currently numbers over 27,000 volumes with an additional 169 periodical subscriptions. Materials also include royalty-free music/sound effect CDs, art history and interior design slides, and an ever growing eBook collection. Textbooks and reserve materials are available for in-house use only. Many academic and industry databases are also available, including EBSCO, StyleSight, Digital Tutors, Hoover Academic, ReferenceUSA, FirstCom and Women's Wear Daily.

### ***Student Life***

The Student Affairs Office is located in room 209 in the Pence building. There you can find information, services and program that can help you to extend and integrate academic content and life experiences.

### ***Community Resources***

This course will engage community resources, including local libraries, galleries, exhibitions, guest speakers and industry tours. Your active participation is important and expected.

### **OTHER ITEMS TO NOTE:**

#### **Holidays for Spring Quarter when the college will be closed are:**

**Friday, April 18 – Good Friday**

**Monday, May 26 – Memorial Day**

**Otherwise the school is open and classes run – this includes weekends.**

You are responsible for saving all returned work.

The course is designed to create a safe, accepting, creative and challenging environment in which students can learn. The course policies are designed to support the best features of the learning-centered classroom. Wherever possible, we will adapt to a student's own style and pace for learning.

Since the learning environment should facilitate intellectual exploration and personal discovery, most activities will be problem-based. Course activities and projects are designed to place the primary responsibility for creating and/or applying knowledge on the shoulders of students.

Students share responsibility in the learning process. To succeed in this class and fully utilize the learning experience, students must be actively involved. This includes following classroom policies such as participating in class discussions, completing assigned reading, demonstrating strong creative design and writings skills, contribution to the team etc. Grades and student learning will suffer when a student is not actively involved.

### **Late Assignments**

Due dates appear in the weekly outline of this syllabus. Projects (and their milestones) are due five minutes after the start of class, unless otherwise specified by the instructor. If a student is unpredictably absent on the day a project is due, (s)he should use the eCompanion Dropbox for the course (if available) *before the due date/time for the project*.

**Late projects will not be accepted**, with the exception of the "Stuff Happens" card, with the regulations listed below:

- The card can be used for any reason whatsoever and extends the due date for the project/milestone by **one class**. The work is due by the start time of class.
- The student may use the card only once during the course. The instructor will enter the use of the card into the student's eCompanion gradebook for recordkeeping purposes.
- The card cannot be used for the final project.
- The student must declare his/her use of the card by e-mailing the instructor at [sgilley@aii.edu](mailto:sgilley@aii.edu) indicating which course and which project (s)he is using the card for. This e-mail must be received **before midnight on the original due date of the project/milestone**.

- It is the **student's responsibility to follow up with the instructor** the following class, indicating that (s)he has submitted the work or is ready to present the work. Failure to do so will result in the instructor not accepting the project.
- The student may also choose to use the card to drop one lab exercise or similar item from the course grade, so long as it is worth no more than 5% of the total course grade.
- The student will receive no additional credit if the card is not used.
- The student may not exchange the card with another student.
- The student may not carry the card over to another course.

### **Resubmitting Assignments**

There are no provisions for resubmitting assignments for the purposes of a revised grade.

### **Make-up Policy**

In-class lab exercises and quizzes cannot be made up. If you arrive late on a quiz day, you will not be given a time extension.

### **Technical Difficulties**

Any technology-related difficulties, including lost data, will not be considered when assessing projects. Save incrementally and often. You are responsible for backing up your own work on a regular basis (preferably in multiple locations, including cloud-based storage).

### **Classroom Environment**

Disruptions to the learning environment will not be tolerated. When the instructor is talking, students are paying attention (this includes not working on projects while the instructor is addressing the class). Cell phones will be turned off or silent. If an emergency call must be taken, the student must do so outside the classroom. Social networking such as Facebook, IM, or Twitter is not allowed during class activities. Students not following any part of this policy may be removed from the class. Repeated disruptions may result in the student being removed from the class for the remainder of the quarter.

### **Note-taking**

In some situations, a student may be assigned the task of note-taker for a particular lecture or exercise. These notes are to be taken via a Word doc, transcribed to a Word doc, or scanned to a JPEG or PDF file, and made available on the course folder (usually on the Shared drive under *Gilley\course name*) no later than the start of the next class.

### **Timing Out of Class**

Students are expected to show up to each class, on time, and ready to work. Students who miss four consecutive classes will be timed out and will not be let back in to the class. Exceptions *may* be made for family/medical emergencies but the student must contact the instructor before he/she misses four consecutive classes (this will be reviewed on a case-by-case basis and is not guaranteed). If an absence is excused, a success plan must be drawn up between the student and the instructor.



## Recommended Actions for Success

1. While your *work* is assessed at discrete moments during the course your (like when you turn in a project), remember *you* are being evaluated at all times. This process is often informal and passive in day-to-day interactions in and out of class as people form impressions of you. Treat the classroom like your first industry job. Everyone has off days, but set a goal of being present, respectful, positive, professional, invested, hard-working, and fun (when the situation calls for it). Contribute (i.e. don't just take, but also give – help the person next to you during work time, announce an upcoming industry event you heard about, etc.). Your instructor and your peers are your first ring of network contacts – convince them that you are worth recommending to others; this will “make your stock go up,” expand your network, and ultimately give you a better chance at getting the job you want. On the other side of the coin, a bad reputation can spread quickly, which will often impede your success – even if you demonstrate talent. Remember the three P's: Positive, Passionate, Professional.
2. Be detail-oriented with your work. Sloppiness and mistakes will sink you quickly.
3. You have to talk like an animator (or visual effects artist, motion designer, etc.) if you're going to be one, so learn the language. You'll tank at the job interview if you can't speak intelligently about your work and process. Know the proper terminology for your day-to-day activities and understand how your work fits into a broader production pipeline.
4. Arguably the most important skill in 3D work is problem-solving. In order to survive in this industry, you have to detect when something is not working right, determine the cause, and find a solution. The instructor is here to help, but you need to be self-directed in troubleshooting. Run through the following when you encounter a problem:
  - a. How can I describe the problem using industry-standard language?
  - b. What was I doing when I first noticed the problem? Does undoing that action also undo the problem?
  - c. What do I think are the most likely causes for this problem? (This is one of the tougher questions to answer. Check your course notes. Google a short phrase that describes the problem using proper terms in your search. Navigate the help docs. Ask classmates if they have ideas.)
  - d. Once you find the answer, add it to your notes so you can refer back to it later. The next time you get stuck on the same problem, you'll know how to get around it more quickly.
5. Find ways to work efficiently. You will accomplish your tasks with greater quality in less time. If you are getting paid a lump sum to do a job, you will in effect increase your hourly rate by spending less time doing the work. If you are getting paid hourly, you will be able to exceed your client's expectations, increasing the chances that your client will offer you more opportunities later on – and you will have more free time to take on additional projects or some well-earned rest and relaxation.
6. Decide what job or type of job you want in the industry, and what companies you would like to work for. Research those companies. Study their work, and make *your* work look like *their* work – this will help you to look like an attractive candidate. Reach out to local artists that interest you and offer to buy them a cup of coffee in exchange for an informational interview.
7. Dream about your ideal projects, but don't undervalue the bread-and-butter work. Individuals and companies must pay the bills, and sometimes that means doing work that isn't overly creative, exciting, or fun. Find some way to improve with every project. Even if the overall idea of a particular project doesn't jazz you, there should be some way you can grow that is useful to your career goal. Identify it and run with it. Keep in mind, on the job, you will usually be doing work handed to you by others, and you won't always enjoy the work.

8. Learn how to break your tasks down into pieces, create a production schedule (consider using a Gantt chart on larger projects), manage your time, and meet deadlines. It will lead to greater success and less stress.
9. Check your school e-mail daily (or forward it to an account that you do check daily). If I need to give or get important information outside of class, I will e-mail you at your school account.
10. Assemble your work into a demo reel and online portfolio ASAP! You never know when a job opportunity will come along, and you need to be ready at a moment's notice to compete against other artists for the spot. The reel and portfolio are living documents, constantly being updated as you produce new and better work – take out the weakest from the herd, replace it with your latest and greatest, and share your accomplishments with your personal and professional networks.
11. Start networking yesterday! A good portfolio is often not enough to get hired for the job you want. Many jobs in this industry are filled by word-of-mouth (which relates back to item #1 above!). Here are some ways to get involved:
  - a. Join email lists/Facebook groups/etc. for industry-related groups, such as the Minnesota Maya User Group, the After Effects User Group, IGDA, MSP-SIGGRAPH, AIGA, etc., and attend their meetings. You may see something cool and meet some new people, and afterward you might be able to continue the conversation at a restaurant or bar where people can get to know you in an informal setting (employers want to know that there is a “personality fit” between their company and a potential employee, and this is a great place to answer that question in a positive way).
  - b. Attend industry-related events such as the Minnesota Electronic Theater. Even better, enter your work!
  - c. Post your work on industry forums so people can see it and give you feedback (some people have gotten job offers just from others viewing their posted work).
  - d. Attend software training sessions (some are free).
  - e. Don't forget those informational interviews mentioned above.
  - f. Don't network exclusively through the Internet. There is nothing like face-to-face interactions.
  - g. Career Services is not tasked with doing your job search for you – they are there to assist, but you still carry the primary responsibility for finding work. *You are the captain of your own ship*, as they say. Don't wait until you need an internship to start networking – those who start getting involved in the professional community earlier in school have a much easier time meeting their goals.

### Some Final Notes

The most common issue I see in class is students not paying undivided attention to class presentations, whether they are lectures, critiques, or other activities. The process of learning tools and techniques essential to your success in the industry, and the deep assessment of peer work, require your full cognitive abilities to be maximally effective. And, just as important, it is the respectful thing to do in the presence of your instructors and peers.

## Weekly Course Schedule

**This schedule is subject to change!**

Revised: 4/6/14

Items in **red** are worth points; see “Student Grading and Evaluation” above for details.

<i>Class Session</i>	<i>Topic</i>	<i>Homework (due at beginning of class)</i>	<i>Related Competencies</i>	<i>In-class Activities</i>
Week 1 Session A	<ul style="list-style-type: none"> <li>• Instructor introduction</li> <li>• Course overview and project samples</li> <li>• Research/design considerations for hard-surface (archViz/prodViz) project</li> <li>• Start hard-surface research journal</li> </ul>	No homework due on first class	1	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Work time</li> </ul>
Week 1 Session B	<ul style="list-style-type: none"> <li>• Producing orthographic references/respecting standard dimensions</li> <li>• DT Learning Path: How to Get Started in Maya</li> <li>• DT: Introduction to Maya 2014</li> <li>• DT: Introduction to Modeling in Maya (2014)</li> <li>• 3dEx Maya character modeling (YouTube)</li> <li>• Maya Learning Channel (YouTube)</li> <li>• Hard-surface reference assessment</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Provide references for two archViz or two prodViz subjects</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Lecture/discussion</li> <li>• Assessment</li> <li>• Work time</li> </ul>
Week 2 Session A	<ul style="list-style-type: none"> <li>• Review DT lessons</li> <li>• Producing orthographic references (<i>cont.</i>)</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• DT: Introduction to Maya 2014, Lessons 1-13 completed</li> <li>• Orthographic references in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Work time</li> </ul>
Week 2 Session B	<ul style="list-style-type: none"> <li>• Review DT lessons</li> <li>• Project set-up (project structure, image planes, etc.)</li> <li>• Creating a production schedule</li> <li>• DT: Maya Modeling Techniques: Interiors</li> <li>• DT: Product Visualization in Maya</li> <li>• DT: Developing Expert Product Visualizations in Maya and V-Ray</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• DT: Introduction to Maya 2014, Lessons 14-34 completed</li> <li>• Photographic and orthographic references due</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• <b>Hard-surface references due</b> (assessment)</li> <li>• Lecture/discussion</li> <li>• Case-study demos</li> <li>• Work time</li> </ul>
Week 3 Session A	<ul style="list-style-type: none"> <li>• Form-down modeling (edge flow and mesh density), separate piece construction</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Production schedule completed</li> <li>• archViz/prodViz project started</li> <li>• Relevant learning resources in-</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Lecture/discussion</li> <li>• Small- and large-group discussion (Q&amp;A)</li> <li>• Case-study demos</li> </ul>

	<ul style="list-style-type: none"> <li>• Q&amp;A</li> <li>• Follow production schedule</li> <li>• Time estimates and tracking</li> </ul>	progress		<ul style="list-style-type: none"> <li>• Work time</li> </ul>
Week 3 Session B	<ul style="list-style-type: none"> <li>• Adding detail through geometry vs. texture</li> <li>• Q&amp;A</li> <li>• Follow production schedule</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Progress based on production schedule</li> <li>• Updated time-tracking</li> <li>• Relevant learning resources in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Lecture/discussion</li> <li>• Small- and large-group discussion (Q&amp;A)</li> <li>• Case-study demos</li> <li>• Work time</li> </ul>
Week 4 Session A	<ul style="list-style-type: none"> <li>• Identifying and fixing illegal geometry</li> <li>• Q&amp;A</li> <li>• Follow production schedule</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Progress based on production schedule</li> <li>• Updated time-tracking</li> <li>• Relevant learning resources in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Lecture/discussion</li> <li>• Small- and large-group discussion (Q&amp;A)</li> <li>• Case-study demos</li> <li>• Work time</li> </ul>
Week 4 Session B	<ul style="list-style-type: none"> <li>• Mid-production presentation (incl. time-tracking report and research journal)</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Mid-production presentation</li> <li>• Updated time-tracking</li> <li>• Relevant learning resources in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• <b>Hard-surface mid-production presentation</b> (large/small-group assessment)</li> <li>• Work time</li> </ul>
Week 5 Session A	<ul style="list-style-type: none"> <li>• Scene management/ "buttoning up" files</li> <li>• Q&amp;A</li> <li>• Follow production schedule</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Progress based on production schedule</li> <li>• Updated time-tracking</li> <li>• Relevant learning resources in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Lecture/discussion</li> <li>• Small- and large-group discussion (Q&amp;A)</li> <li>• Case-study demos</li> <li>• Work time</li> </ul>
Week 5 Session B	<ul style="list-style-type: none"> <li>• Q&amp;A</li> <li>• Follow production schedule</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Progress based on production schedule</li> <li>• Updated time-tracking</li> <li>• Relevant learning resources in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Small- and large-group discussion (Q&amp;A)</li> <li>• Case-study demos</li> <li>• Work time</li> </ul>
Week 6 Session A	<ul style="list-style-type: none"> <li>• Q&amp;A</li> <li>• Follow production schedule</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Progress based on production schedule</li> <li>• Updated time-tracking</li> <li>• Relevant learning resources in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Small- and large-group discussion (Q&amp;A)</li> <li>• Case-study demos</li> <li>• Work time</li> </ul>
Week 6 Session B	<ul style="list-style-type: none"> <li>• Lighting, occlusion, and rendering</li> <li>• Wireframe rendering</li> <li>• Hard-surface final presentation (incl. time-tracking report and</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Hard-surface final (beginning of class)</li> <li>• Updated time-tracking</li> <li>• Rendered presentation (end of class)</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• <b>Hard-surface project due</b></li> <li>• Lecture/workshop</li> <li>• Large-group presentation</li> </ul>

	research journal) <ul style="list-style-type: none"> <li>• Research/design considerations for organic project (character/medViz)</li> </ul>			
Week 7 Session A	<ul style="list-style-type: none"> <li>• Topology research/sketching flow lines</li> <li>• Organic reference assessment and revisions</li> <li>• DT: Character Modeling Concepts in Maya</li> <li>• 3dEx modeling tutorials (YouTube)</li> <li>• YouTube modeling hand/ear: Ryan Kittleson</li> <li>• Start organic research journal</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Organic references due for assessment</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Lecture/discussion</li> <li>• Assessment</li> <li>• Work time</li> </ul>
Week 7 Session B	<ul style="list-style-type: none"> <li>• Review project set-up (project structure, image planes, etc.)</li> <li>• Review form-down modeling (edge flow and mesh density), separate piece construction</li> <li>• Modeling with symmetry</li> <li>• Create production schedule</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Revised organic references due</li> <li>• Relevant learning resources in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• <b>Revised organic references due (incl. flow lines)</b></li> <li>• Lecture/discussion</li> <li>• Work time</li> </ul>
Week 8 Session A	<ul style="list-style-type: none"> <li>• Q&amp;A</li> <li>• Follow production schedule</li> <li>• Time estimates and tracking</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Progress based on production schedule</li> <li>• Updated time-tracking</li> <li>• Relevant learning resources in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Small- and large-group discussion (Q&amp;A)</li> <li>• Case-study demos</li> <li>• Work time</li> </ul>
Week 8 Session B	<ul style="list-style-type: none"> <li>• Q&amp;A</li> <li>• Follow production schedule</li> <li>• Time estimates and tracking</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Progress based on production schedule</li> <li>• Updated time-tracking</li> <li>• Relevant learning resources in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Small- and large-group discussion (Q&amp;A)</li> <li>• Case-study demos</li> <li>• Work time</li> </ul>
Week 9 Session A	<ul style="list-style-type: none"> <li>• Q&amp;A</li> <li>• Follow production schedule</li> <li>• Time estimates and tracking</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Progress based on production schedule</li> <li>• Updated time-tracking</li> <li>• Relevant learning resources in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Small- and large-group discussion (Q&amp;A)</li> <li>• Case-study demos</li> <li>• Work time</li> </ul>
Week 9 Session B	<ul style="list-style-type: none"> <li>• Mid-production presentation (incl. time-tracking report and</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Progress based on production schedule</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• <b>Organic mid-production presentation</b> (large/small-group assessment)</li> </ul>

	research journal)	<ul style="list-style-type: none"> <li>• Updated time-tracking</li> <li>• Relevant learning resources in-progress</li> </ul>		<ul style="list-style-type: none"> <li>• Work time</li> </ul>
Week 10 Session A	<ul style="list-style-type: none"> <li>• Q&amp;A</li> <li>• Follow production schedule</li> <li>• Time estimates and tracking</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Progress based on production schedule</li> <li>• Updated time-tracking</li> <li>• Relevant learning resources in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Small- and large-group discussion (Q&amp;A)</li> <li>• Case-study demos</li> <li>• Work time</li> </ul>
Week 10 Session B	<ul style="list-style-type: none"> <li>• Recombining after modeling with symmetry</li> <li>• Illegal geometry and Mudbox</li> <li>• Q&amp;A</li> <li>• Follow production schedule</li> <li>• Time estimates and tracking</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Progress based on production schedule</li> <li>• Updated time-tracking</li> <li>• Relevant learning resources in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Lecture/discussion</li> <li>• Small- and large-group discussion (Q&amp;A)</li> <li>• Case-study demos</li> <li>• Work time</li> </ul>
Week 11 Session A	<ul style="list-style-type: none"> <li>• Review lighting and rendering</li> <li>• Q&amp;A</li> <li>• Follow production schedule</li> <li>• Time estimates and tracking</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Progress based on production schedule</li> <li>• Updated time-tracking</li> <li>• Relevant learning resources in-progress</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• Lecture/discussion</li> <li>• Small- and large-group discussion (Q&amp;A)</li> <li>• Case-study demos</li> <li>• Work time</li> </ul>
Week 11 Session B	<ul style="list-style-type: none"> <li>• Final presentation (incl. time-tracking report and research journal)</li> </ul>	[Est. time needed: 2 hours] <ul style="list-style-type: none"> <li>• Organic final</li> </ul>	1, 2	<ul style="list-style-type: none"> <li>• <b>Organic project due</b> (large-group presentation)</li> </ul>