



Please view this 1 minute video to get started.

Welcome to the third Unreal Engine class at West Los Angeles College! I'm Jennifer Penton and I will be your instructor. In this class you will be introduced to many elements of Unreal Engine, virtual production, and gaming, including terms, workflows, final product views and behind the scenes information. You will learn about the major players in virtual production and gaming, as well as the basics of Unreal Engine 5.42. Please take a minute to view my video and learn a little about me. Then explore the rest of this page to get prepared for this course. I'm looking forward to getting to know you and exploring Unreal Engine together. I'll see you in class in TLC 405!

Pronouns: she/her/hers
 You are welcome to call me Jennifer or Professor Penton.

HOW THIS COURSE WORKS:

- **My Email:**

Please email me through the **Canvas Inbox**, as I will see this email much more quickly, and it will notify me immediately. With that said, please take note of my West Los Angeles College email address for the future, if you are not in any of my classes and are not able to utilize the **Canvas Inbox**. In that case, feel free to email me at pentonjk@wla.edu.

- **My Office Hours:**

I am happy to meet with you on Fridays from 1:00 pm to 4:00 pm by appointment and many other times, including weekends, as my number-one concern is your success in this class. Please send me an email through the **Canvas Inbox** to schedule a time that works well for both of us to Zoom or meet in person. It will be helpful if you let me know what you would like to discuss, so that I can be better prepared to meet with you. Also, please note that setting up an appointment will allow me to give each student the best assistance possible, as I may be meeting with other students and this will allow me to be most efficient and organized. Once you email me, I will promptly send you a link to my Zoom ID:
laced.zoom.us/j/9327296385

- **Please see the Official College Catalog Course Description:**

This career-focused course introduces students to Epic Games Unreal Engine technology for use with gaming, virtual production, animation, visual effects, and other career pathways. Topics covered will include but not be limited to getting started with Unreal Engine, the Epic Launcher, the Library, the user interface, the Marketplace, Quixel Bridge, Metahuman, Blueprints, creating environments, Animation, Cameras, the Sequencer, Exporting, and synchronizing the

- **Computers & Canvas:**

We will be utilizing Canvas to submit assignments, engage in discussions, and take our Quizzes. Please take the **Canvas Orientation** if you are not familiar with Canvas.

- Computers and Canvas will be provided to you in TLC 405 during class and additional times to be determined.
- You may also use your own computer to access Unreal Engine & Canvas in order to practice outside of class time. If you have any trouble with Canvas, please go to the **WLAC support page**. Also, you may contact Distance Learning at (310) 287-4305 Monday – Friday from 9:00 am – 5:00 pm or contact Canvas' 24-hour support line at (844) 303-5590.
- Please note that a more detailed description of what is expected for each assignment can be found in **Canvas**.

- **Class Structure:**

This is an 8-week, fully in-person course that begins on August 27, 2024.

- This class meets Tuesdays, from 2:00 pm to 6:15 pm in the Technology Learning Center (TLC), 4th Floor, Room 405. Please see a photo of the TLC building below:



virtual camera with a real camera. Through lectures, demonstrations, and hands-on exercises, students will learn the Unreal Engine workflow from pre-visualization, through production to postproduction. Students will become familiar with hardware such as Gaming PCs and / or Macs, cutting edge GPUs, Unreal Engine software, and applicable terminology, such as Nanite, Lumen, and the Virtual Production Glossary. The history of immersive media, how it is changing our cultural landscape, and how it is projected to evolve, will also be explored.

• **Prerequisites, Co-requisites, Advisory:**
None

• **Software:**
Unreal Engine 5.4.2

• **Point based Course Requirements and Grading Criteria:**
- Participation/Discussions & Communication
- Quizzes
- Homework & Activities

A = 100% - 90%
B = 89% - 80%
C = 79% - 70%
D = 69% - 60%
F = 59% - 0%

- Lecture and Lab will occur during this time, and we will provide additional lab time.
- We will complete fun Unreal Engine assignments in TLC 405 and submit them through Canvas Module Assignments.
- We will learn in a community with our peers in TLC 405 and through Canvas. Enjoy networking and getting to know each other!
- In Canvas, this class is organized into 8 one-week modules that will open as we progress through the course. Be sure to look on your Canvas **Home Page** and progress through each module by doing readings, assignments, online discussions, and quizzes as assigned. I will guide you through this process.

• **Textbooks:**
We will read selections from the following textbooks and submit answers to questions related to our readings through Canvas Assignments:
The Virtual Production Field Guide Volume 1
The Virtual Production Field Guide Volume 2

• **Discussions:**
Over the course of the semester, in addition to Canvas Discussions, we will have in-person discussions. Even if you are shy, the more you participate, the more you will be engaged in the class and learn, so do your best to join in. This is a safe atmosphere. You might even enjoy participating! :)

MY COMMITMENT TO YOU:

I recognize that this is an especially stressful time to be a student. The aftermath of COVID-19, racial injustices, war, inflation, and a more polarized political climate have added stress to our lives that may affect your ability to learn. Be kind to yourself as you try your best. I am committed to being flexible throughout this course to support your academic success as your partner on this journey. I will support you, guide you, challenge you, and most of all, believe in you. Also remember that Unreal Engine is a tool to create art, and that art heals us, so have fun and let your creativity soar! By the end of this class, you will be able to create an environment like this video, by student Alex Fradkin. Be sure to turn on the sound! :)



MY TEACHING PHILOSOPHY:

I am passionate about Film, Television and storytelling, and I strive to inspire students. I therefore make each subject as interesting and relatable as possible and embrace project-based, experiential learning. This approach values the process as much as the end result and allows for creative expression as well as the ability to make critical connections. I encourage lively class discussions, collaboration, and a strong respect for diversity of student populations, learning styles, and educational needs. I also strive to take students on exciting, fun field trips! This allows students to feel safe and free to enjoy the learning process, and therefore to excel beyond their expectations. Please enjoy this infinity video reminding us that wonderful possibilities are endless! :)



OUR PACT:

What you can expect from me:

1. I will conform to the highest standards of integrity, treat you with dignity and respect and be flexible to support your individual needs.
2. I will provide you with a clear, organized course that is designed to ensure you meet our course outcomes in a meaningful manner.
3. I will provide a variety of assignments to ensure your learning needs are met.
4. I will be actively present in your learning.
5. I will provide a supportive and safe environment for you to share and discuss ideas with your peers.
6. I will reach out to you when I sense that you need support.
7. I won't be perfect. I am human and will make mistakes at times. I will view mistakes as an opportunity to learn and grow.
8. I will meet with you in person or via zoom to help you with class subjects. I am here as a resource for you. In my world, there are no dumb questions. :)

What I will expect from you:

1. You will treat me and your peers with **dignity and respect, and observe our Netiquette rules.**
2. You will strive to be an active participant in this course and aim to meet due dates.
3. You will maintain an open line of communication with me so I understand how to support you.
4. You will contact me if you have a concern with meeting a due date.
5. You will strive to regularly contribute to Canvas Discussions to ensure other members of the community have ample opportunity to read/listen, reflect, and respond to your ideas.
6. You will do your best to have patience with technology. We will troubleshoot together.
7. You will be patient with yourself as you make mistakes. You are human and mistakes are part of learning and growing.
8. You will conform to the highest standards of integrity, and will not falsify arrival time or departure time to class functions, or commit any form of plagiarism.

IMPORTANT: A NOTE ABOUT AI, ChatGPT, AND PLAGIARISM:

Please do not violate the LACCD Student Code of Conduct, on page 325 of the WLAC 2024 - 2025 Catalog. Violations of Academic Integrity include, but are not limited to, cheating on an exam, plagiarism, working together on an assignment, paper or project when the instructor has specifically stated students should not do so, submitting the same term paper or project to more than one instructor, or allowing another individual to assume one's identity for the purpose of enhancing one's grade.



Please no plagiarism, no AI plagiarism. This means no using human generated content and claiming it as your own. You may quote sources from other people, but you must **cite your sources**. Also, please note that using an AI generator such as ChatGPT to write your essay for you is also plagiarism, because you are not doing the work to write your own essay. Students who plagiarize are not learning and are not gaining critical thinking skills. Our plagiarism detector catches students who commit any form of plagiarism including AI generated plagiarism. These students are reported to our Administration. As plagiarism is a serious student misconduct issue, they may be expelled from West Los Angeles College and all other eight LACCD Community Colleges.

I am here to help you and I want you to feel safe expressing yourself in your own words. For help with your homework, please email me through the **Canvas Inbox**. Also, please note that we have tutoring available through the **Learning Center**.

JENNIFER'S TIPS FOR SUCCESS:

You'll have more opportunities to be successful if you follow these tips:

Start with the Home Page:

Each time you log in, start on our course **Home Page**, as it will not only list the Modules, but it will list Recent Announcements on the top.

Be proactive:

Make it a goal to log into our course after every Tuesday class to ensure that you understand the pages, assignments, discussions, and quizzes of that week's module, and be prepared to complete those assignments, discussions, and quizzes.

Submit Early:

Set a personal goal for yourself to have all of your assignments done 24 hours before they are due. Why? Because life happens and when you wait until the last minute, you're more likely to have problems meeting a due date. I am here to support you when things go awry but procrastination will always be your worst enemy.

Communicate with me:

I need you to let me know what's happening on your end. If you identify a challenge meeting a due date, just reach out and let me know. I am grateful for your efforts to inform me. Really! I love hearing from you! When possible, contacting me before a due date will keep you and me in sync and ensure you don't get overwhelmed by unfinished work. In your message, propose an alternative due date, within 48 hours is advised to ensure you don't fall too far behind.

Check your Canvas assignment and discussion grades often:

Make sure to check your grades and my comments, as I grade by the Rubric, and provide you an opportunity to resubmit your work to improve your grade. Please take advantage of these opportunities!

SUPPORT FOR YOU:



Basic Needs

CE 105A & CE 103 | (310) 287-4487 | wlaac-basicneeds@wlaac.edu

The Basic Needs Program has free food and clothing right on campus, and supports students by connecting them to on & off-campus resources and community referrals. Basic Needs encompasses those very necessities to survive: Food and Shelter. They work with students holistically, through a case management model to identify needs, whether it be food, shelter, health & wellness, a stable income or other needs. Then, they link students to available resources to keep students going, having a better chance of focusing and continuing school.



Financial Aid

Student Services Building (SSB) 210 2nd Floor | (310) 287-4532 | financialaid@wlaac.edu

Please complete either the Free Application for Federal Student Aid (FAFSA) or the California Dream Act Application to determine your financial aid eligibility. This assistance makes it possible for students to continue their education beyond high school if they cannot meet the full cost of the college they choose to attend. These applications open October 1st every year. In order to receive priority awarding for the state issued Cal Grant funds during the subsequent Fall semester, students must complete their application by March 2nd. Please see the [Financial Aid Webpage](#) for more details.



Office of Disabled Student Programs and Services (DSP&S)

Student Services Building (SSB) Room 320 | (310) 287-4450 | DSPS@wlaac.edu

The Disabled Students Program and Services (DSPS) coordinates academic accommodations for students with disabilities at West Los Angeles College. If you have or think you might have, a disability that impacts your educational experience in this class, please contact DSPS to determine your eligibility for accommodations. If you are already registered with DSPS, please submit your accommodation requests as soon as possible to allow adequate time to provide accommodation. All information and documentation are confidential.



Library Services

Heldman Learning Resources Center (HLRC) 2nd Floor | Reference: (310) 287-4269 & Circulation: (310) 287-4408

The WLAC Library provides instruction on how to use the online catalog, periodical and research databases. In addition to a large collection of books, periodicals and DVDs the WLAC Library has course textbooks which students may use while in the library. Web access is available in LIRL as well as meeting rooms. The upper floors provide a beautiful view. The library also has a large computer lab, ideal for reading your textbook and submitting Canvas reading assignments and discussions, as well as working in Avid Media Composer, Adobe Photoshop, After Effects, and Premiere, on computers 67-78.



Learning Center (LC)

Heldman Learning Resources Center (HLRC) 1st Floor | (310) 287-4404 or (310) 287-4546

The learning center offers many services, including the following:

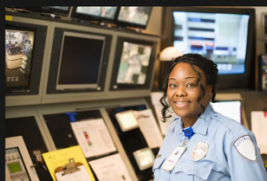
- Reading and Writing for College Readiness
- College & Scholastic Assessment Preparation
- Foundational Study Skills
- FREE Small Group and Individual Tutoring in Many Subjects!
- Printing Services
- GED Preparation Services



Child Development Center (CDC)

(310) 287-4357

The Child Development Center (CDC) is a nurturing place for children of WLAC student/parents, staff/faculty and community parents, designed for young children ages 1-4 years. WLAC students receive first priority in enrollment. The CDC is fully licensed and provides free and low cost early education services, in a safe, supportive, diverse, positive environment. They offer a play-based learning approach tailored to each child's developmental stage, fostering creativity and curiosity. They strive to provide enriched learning experiences based on the latest research and the best practices to meet the needs of children, families, staff and college students. They also provide free, nutritious breakfast, lunch, and snacks daily to all children enrolled.



Campus Sheriff's Office: Campus Safety

TLC First Floor, Near Parking Lot 5 | (310) 287-4314 & (310) 287-4315

During a WLAC campus emergency, please **do not call 911**. Instead call the Campus Sheriff's office, as they know the campus best. Please save their number above in your phone for easy access. The Sheriff's Office website includes information about the following:

- LA County Fire, Ambulance, and Paramedics
- Drill or Emergency Building Evacuations
- Lock-down or Active Shooter Situations
- Title IX Situations

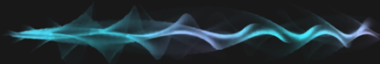


Title IX

Title IX is a prohibition against sex-based discrimination in education. It addresses discrimination against pregnant and parenting students and women in STEM (science, technology, engineering, and math) programs. It also addresses sexual harassment, gender-based discrimination, and sexual violence, including attempted or completed rape or sexual assault, as well as sexual harassment, stalking, voyeurism, exhibitionism, verbal or physical sexuality-based threats or abuse, and intimate partner violence. Title IX does not apply to female students only. Title IX protects any person from sex-based discrimination, regardless of their real or perceived sex, gender identity, and/or gender expression. Female, male, and gender non-conforming students, faculty, and staff are protected from any sex-based discrimination, harassment or violence.

LEARNING OUTCOMES & OBJECTIVES:

Below is a list of knowledge and skills you can expect to gain in this class, also referred to as Student Learning Outcomes (SLOs):



- Give a brief history of Epic Games Unreal Engine and its uses in multiple industries, with specific understanding of the parallax effect and its importance with respect to 3D gaming software development for multiple industries.
- Describe the key personnel and departments common to Unreal Engine projects.
- Name the key phases common to most productions.
- Demonstrate an ability to collaborate in breaking down an immersive media project from a variety of departmental viewpoints.
- Explain the hardware / GPU needs of Epic Games Unreal Engine.
- Demonstrate an ability to install and Launch Unreal Engine using the Epic Games Launcher.
- Demonstrate an ability to create a project in Unreal Engine using the Unreal Project Browser.
- Demonstrate an ability to edit an Unreal Engine project in the Unreal Editor, utilizing the Content Drawer, Outliner, Details, Selection Modes, and other tools / functions.
- Demonstrate an ability to import, utilize, and edit assets from the Marketplace and Quixel Bridge.
- Explain and utilize specialized terminology common to Unreal Engine, such as Shaders, Compiling, Actors, and Scalability, including the Virtual Production Glossary.
- Propose Unreal Engine projects that demonstrate a working knowledge of basic technology.
- Demonstrate working knowledge of the Unreal Engine Sequencer, including animation and keyframes.
- Demonstrate an understanding of the importance of key life skills such as punctuality, dependableness and professionalism.
- Explain key Unreal Engine innovations such as Nanite and Lumen.
- Utilize Unreal Engine to generate basic characters and environments for use in immersive reality projects on a variety of platforms, including but not limited to gaming, Virtual Production, visual effects, and animation.
- Understand the workflow, hardware, and software necessary to create an immersive media experience from pre-visualization to activation.
- Demonstrate a working knowledge of Metahuman. Evaluate the ethical ramifications of utilizing Metahuman.
- Explain basic safety procedures in key jobs.
- Practice project file structure organization and choose appropriate workflows.
- Demonstrate a working knowledge of Blueprints.
- Demonstrate a working knowledge of Cameras.
- Create Unreal Engine projects that demonstrate a working knowledge of the software.



COURSE CONTENT & SCHEDULE:

Week 1: Unreal Engine Basics, Virtual Production & Gaming Conferences

- Introductions
- Syllabus
- Unreal Engine 5.4.2
- Lecture and Discussion: Virtual Production History
- Game Developers Conference, San Francisco, March 17-25, 2025
- Siggraph 2025 Vancouver: Student Volunteer Apply as soon as available, DEADLINE early 2025, Conference August 10 - 14, 2025
- Unreal Engine Basics, begin, using computers in TLC 405
- *The Virtual Production Field Guide Volume 1*

- READ Chapters 1 & 2 in your textbook, Answer Canvas Questions

Week 2: Unreal Engine Basics, Virtual Production & Gaming Terms

- SUBMIT Chapters 1 & 2 in your textbook, Answer Canvas Questions
- Lecture and Discussion: Virtual Production & Gaming Topics: Important Organizations, VP Glossary, Film Evolution Comparison, History of Gaming
- Create Unreal Engine Account
- Unreal Engine Basics, Finish, using computers in TLC 405
- READ Chapter 3 pages 20 - 37 in your textbook, Answer Canvas Questions

Week 3: Unreal Engine Build Environment, Virtual Production & Gaming Types

- SUBMIT Chapter 3 pages 20 - 37 in your textbook, Answer Canvas Questions
- Lecture and Discussion: Virtual Production & Gaming Topics
- Unreal Engine Build Environment
- READ Chapter 3 pages 38 - 58 in your textbook, Answer Canvas Questions

Week 4: Unreal Engine Build Environment, Virtual Production & Gaming Applications

- SUBMIT Chapter 3 pages 38 - 58 in your textbook, Answer Canvas Questions
- Lecture and Discussion: Virtual Production & Gaming Topics
- Unreal Engine Build Environment
- READ Chapter 3 pages 59 - 78 in your textbook, Answer Canvas Questions
- Midterm

Week 5: Unreal Engine Build Environment, Virtual Production & Gaming Financials

- SUBMIT Chapter 3 pages 59 - 78 in your textbook, Answer Canvas Questions
- Lecture and Discussion: Virtual Production & Gaming Topics
- Unreal Engine Build Environment
- READ Chapters 3 & 4 pages 79 - 93 in your textbook, Answer Canvas Questions

Week 6: Unreal Engine Move Camera Through Environment, Virtual Production & Gaming Deeper Dive

- SUBMIT Chapters 3 & 4 pages 79 - 93 in your textbook, Answer Canvas Questions
- Lecture and Discussion: Virtual Production & Gaming Topics
- Unreal Engine Move Camera Through Environment

- *The Virtual Production Field Guide Volume 2*

- READ selected topics from *The Virtual Production Field Guide Volume 2*, Answer Canvas Questions

Week 7: Unreal Engine Metahuman & Environment, Virtual Production & Gaming Future

- SUBMIT selected topics from *The Virtual Production Field Guide Volume 2*, Answer Canvas Questions
- Lecture and Discussion: Virtual Production & Gaming Topics
- Unreal Engine Metahuman and Environment
- READ Epic Games Virtual Production Visualization Guide

Week 8: Unreal Engine Metahuman & Environment, Virtual Production & Gaming Final Thoughts

- SUBMIT Epic Games Virtual Production Visualization Guide
- Lecture and Discussion: Virtual Production & Gaming Topics
- Unreal Engine Metahuman and Environment
- Final Exam

PLEASE NOTE: This syllabus/schedule is subject to change, due to field trips, potential guest speakers, and / or changes in the pacing of this class.

Enjoy this class! I look forward to teaching you and I hope you are excited to begin!
Warmest Regards,
Jennifer