



Official Summer or Fall Program, Program Completion Certificate,
Student Recommendation Letter, and Performance report



Program Overview

To give foreign university students an opportunity to experience the classroom atmosphere, this program will give students the opportunity to study online at the University of Nevada, Las Vegas (UNLV) for credit. Courses will be taught by professional professors or lecturers in their corresponding fields. The program includes UNLV courses, group discussions, online tutoring, final report, and more. This maximizes student's ability to experience the distinguishing academics of UNLV in a short time period and improve individual knowledge. A certificate of completion, performance report, and student recommendation letter will be awarded upon completion of the program. Top-ranking students will have the opportunity to earn a certificate of excellence and obtain future scholarships to the UNLV College of Engineering.

List of Course Options :

- Computer Science
- Artificial Intelligence
- Internet of Things
- Autonomous Vehicles



Program Theme

Number	Course theme	Start date	End date	Duration	Cost	Course information
UVO1	Online Program	TBA	TBA	6 weeks	TBA	Appendix 1



University Introduction



University of Nevada, Las Vegas is a long-established public coeducational university, founded in 1957. UNLV is famous for areas of study such as history, engineering, environmental studies, hotel management, fine arts, and management information systems.

The university is ranked in the category of “high research activity” by the Carnegie Foundation. According to the Atlantic Monthly, UNLV has the most innovated MFA course in the United States and is ranked in the top 5 schools for Creative Writing PhD. Additionally, UNLV is famous for basketball, including training of stars such as Armon Gilliam, Reggie Theus, and Larry Johnson.

Top Research University Status :

According to the Carnegie Foundation for the Advancement of Teaching, UNLV has achieved “very high research activity” status and is moving towards the top tier. This elite category contains only 120 universities nationwide. UNLV is the first university in Nevada to achieve this distinction.

ABET Accredited Programs :

- 1987 : Civil Engineering
- 1987 : Mechanical Engineering
- 1988 : Electrical Engineering
- 1993 : Computer Science
- 2003 : Computer Engineering



Program Results

Program Completion Certificate

Students who successfully complete the program will receive a certificate of completion issued by the College of Engineering at University of Nevada, Las Vegas.

Performance report

Depending on the attendance rate of student, the completion of course work, and the completion of the program, students will receive a performance report. The performance report reflects the grade, course time, length of course, credit information, etc.



Program completion certificate



Performance report

Student Recommendation Letter

Upon completion of the program, the host college and the professor will issue a letter of recommendation for each student based on the student's course performance and the performance report.

Certificate of Excellence and Scholarships

At the end of the program, the professor will evaluate students based on their performance and test scores during the program. The top 20% of students will receive recognition and be issued a certificate of excellence.

* Student that obtain a certificate of excellence will automatically be eligible for scholarships at the University of Nevada, Las Vegas. These students will also receive partial scholarships from the university during future degree programs in the College of Engineering. (The final interpretation of this clause is subject to the College of Engineering at University of Nevada, Las Vegas).



[Student Recommendation Letter](#)



[Certificate of Excellence](#)



Registration Instructions

[Teaching Method](#)

- Real time online teaching at the University of Nevada, Las Vegas
- Professors will register students to the online platform, students can log in using a unique student identification number

[Application Materials](#)

- Proof of enrollment
- Proof of English proficiency (official language test certificate, English class transcript, or 1-minute oral video)

[Enrollment Limits](#)

Each course will not exceed 30 students. Classes are filled on a first-come-first-served basis.

[Deadline](#)

The deadline to register is June 10, 2020 (Summer) and August 10, 2020 (Fall).



Course Options

Computer Science

Course Description:

Learn to use high-level programming languages for problem solving and algorithm development. Use proper programming style and techniques for development, coding, debugging, and documentation. Conduct software development in a powerful software development environment and convert them

into conformed C++ programs. Compile and run programs in Linux system with proper testing and debugging strategies.

Artificial Intelligence

Course Description:

Overview of current AI technologies : game design, theorem proof, natural language processing, pattern recognition, and heuristic programming. Master tree search algorithm, blind search strategy, and best priority search strategy. Master first-order logic, reasoning, and planning algorithm. Master Bayesian network and Bayesian network reasoning. Master neural network algorithm and decision tree method.

Internet of Things

Course Description:

Internet of Things (IoT) system design and details, IoT elements, IoT sensor detailed analysis, and IoT sensor system communication. Analysis of IoT system design process, data management, database design, and security requirements.

Autonomous Vehicles

Course Description:

Application, feasibility, and advantages of autonomous vehicles in urban transportation systems. Review research history of autonomous vehicles, including military use, highway environment, and urban transportation. Discuss the key technologies of unmanned autonomous vehicle research and the vision for future development.

Note: Enrolled students may select only ONE course.

Faculty Introduction

Below are previous faculty for prior programs. Due to the course schedule, the actual faculty for each course may be subject to change.



Mingon Kang, Ph.D

Department of Computer Science, Assistant Professor

- Dr. Kang is an assistant professor in the Department of Computer Science at UNLV. Before joining UNLV, he taught at Kennesaw State University and Texas A&M.
- His research focus includes bioinformatics, machine learning, data mining, computer vision, and big data analysis.



Venkatesan Muthukumar

Department of Electrical and Computer Engineering, Associate Professor

- Dr. Muthukumar is an associate professor in the Department of Electrical Engineering at UNLV. His expert areas include embedded system design, chip systems, etc.
- His research includes machine learning of single chip microcomputer, unmanned aerial systems (development of adaptive guidance, navigation and control (GNC) algorithms for UAVs), and hyperspectral imaging.

Grzegorz Chmaj

Department of Electrical and Computer Engineering, CPE Laboratory Director



- He is the lab director of the Department of Electrical and Computer Engineering. The main courses he teaches include: computer logic design, digital system architecture and design, single-chip system design, computer science, engineering electronics, feedback and control of systems, IoT, etc.
- His research includes: IoT, blockchain solutions, reconfigurable processing systems, distributed systems, embedded systems, public computing architecture, and effective usage of computing and network resources, etc.



Course Structure

Week	Day	Time	Description
0	-	-	Prep week: equipment preparation, program overview
Week 1	Tue	9:00 – 11:00	Online course
	Wed	Self Schedule	2-hour project assignment
Week 2	Thu	9:00 – 11:00	Online course
	Tue	9:00 – 11:00	Online course
	Wed	Self Schedule	2-hour project assignment
Week 3	Thu	9:00 – 11:00	Online course
	Tue	9:00 – 11:00	Online course
	Wed	Self Schedule	2-hour project assignment
Week 4	Thu	9:00 – 11:00	Online course
	Tue	9:00 – 11:00	Online course
Week 4	Wed	Self Schedule	2-hour project assignment

	Thu	9:00 – 11:00	Online course
	Tue	9:00 – 11:00	Online course
Week 5	Wed	Self Schedule	2-hour project assignment
	Thu	9:00 – 11:00	Online course
	Tue	9:00 – 11:00	Online course
Week 6	Wed	Self Schedule	2-hour review
	Thu	9:00 – 11:00	Online course, online exam

Note :

1. The program online course times may be adjusted according to the schedule of the teaching faculty, subject to notice before the start of the course.
2. Depending on the different contents of the course, the schedule and form of assignments may vary, subject to notice before the start of the course.



Course

Each course includes:

- 4 hours online course per week
- 2 hours project work per week
- 6 weeks total study time

36 hours total.