

Dual Degree: Master of Business Administration & Master of Science - Computer Science

2 Graduate Program Create 2021-22

I. General Information

The faculty member originating this proposal is to complete sections I,II, and III.

TURN ON help text before starting this proposal by clicking  in the top right corner of the heading.

You will need to turn on help text again after any actions that refresh the page including after saving proposals, importing information, or running impact reports.

FILL IN ONLY fields required marked with an *. You will not be able to launch the proposal without completing the required fields.

Type of Program* Interdisciplinary Discipline Specific Dual Degree

Department(s) (if dual or interdisciplinary - add all departments)*

Computer Science

Business Administration Programs

Program Type*

Dual Master's

Degree Type*

Master of Business Administration

Program Level* Post-Bachelor's Post-Master's Other (see below)

If program level is other, please specify

Degree Name* Dual Degree: Master of Business Administration & Master of Science - Computer Science

II. Program Administration Information

Graduate Anjala Krishen and Laxmi Gewali

Coordinator(s) for Proposed Program*

Department(s) contact information: email, phone number* anjala.krishen@unlv.edu at 540.588.3961 and laxmi.gewali@unlv.edu at 702.895.4028

Total Required Credits* MS CS is 30 credits; Master of Business Administration is 30 credits

Date of First Enrollment* Fall 2021

Instructional Mode*

In person only

Web-based only (all courses offered online)

Hybrid (50% or more courses offered online)

Program Delivery Description* Hybrid course format for the MBA portion of the degree. The MBA program is hybrid format and is a part-time evening program that is set up to accommodate working professionals as well as full-time students. The MS Computer Science portion of the dual degree will be mainly based on in-person courses but may include online ones as recommended and offered.

Rationale regarding credit analysis has been attached.

Typical Time to Degree* 4

Will this program have differential tuition?* Yes No

If yes, have the differential tuition being approved by the school/college and provost?* Yes No

Provide the proposed CIP code

Admission Term Deadlines:

Deadlines for each semester must be on or before: Fall - August 1st, Spring - December 1st, Summer - May 1st

Admission Term(s)* Fall
 Spring
 Summer

Application Deadline(s)* Graduate College

Kira is a holistic admissions tool where applicants can submit timed, recorded, video interviews on competencies that are important to your program. Rate your applicant interviews from the convenience of your desk on topics like professionalism, determination, critical thinking, and more. Administrated by the Graduate College, this tool can help you admit a diverse applicant pool with the right fit for your program. Learn more at kiratalent.com!


Will this program admissions process include Kira online interviews?*

Yes No

Graduate Assistant stipend is commonly set per-discipline, and may follow the averages set by the graduate assistanship survey. Please contact gradcurriculum@unlv.edu for assistance in accessing the survey.

Graduate Assistant Stipend* 0

III. Program Information

Please attach required documents by navigating to the Proposal Toolbox and clicking  in the top right corner.

- Documents Required for Program Proposal to be Complete for NSHE approval***
- This form
 - Dean's Memo – Identifies strengths and weaknesses and showing the priority of this program within your College's strategic plan.
 - Letters of Support
 - NSHE Proposal Form – Available from the Vice Provost for Academic Programs
 - New Program Budget Projection - Available from the Vice Provost for Academic Affairs
 - Sample Degree Program
 - Program Assessment Plan – Available from UNLV Office of Academic Assessment
 - Five Representative Course Syllabi
 - Approved UNLV New Program Pre-Proposal Form - Available from the UNLV Vice Provost for Academic Programs
 - Graduate Assistant Plan
 - Recruitment, Retention, Progression, and Completion (R2PC) Plan

Program Overview* This program will combine two existing programs MBA and MS CS. Students will complete both degrees and do all of the courses for the MS while being able to have a few less credits for the MBA program.

Aspirational Peer Examples of Similar Degrees (Provide Institutions and weblinks)* To our knowledge this will be the first of its kind in the state of Nevada, but lots of other states offer it, e.g., UofChicago at <https://www.chicagobooth.edu/mba/joint-degree/mpcs-mba>, Stanford at <https://cs.stanford.edu/academics/joint-degree-programs/joint-cs-msmba-degree>, and UofColorado at <https://www.colorado.edu/business/sites/default/files/attached-files/mba->

Learning Outcomes*

MBA portion:

- Recognize and evaluate ethical, legal, and regulatory dimensions of business decisions.
- Communicate effectively business ideas and analyses in writing.
- Communicate effectively business ideas and analyses in the oral presentation.
- Work effectively in a team-oriented environment.
- Apply business concepts to managerial decision-making within a global or domestic setting.

CS portion:

1. Apply in-depth knowledge of specialized areas and advanced topics in computer science to solve problems.
2. Independently analyze, design, and implement an innovative computer application or research project.
3. Use skills and knowledge gained in the program to prepare a final project or research report on the solution to a computer related problem.
4. Effectively communicate the results of research to various audiences.

**Program
Assessment
Overview***

This dual MBA/MSCS program is under the MBA programs. We apply a generic assessment plan for MBA programs, including all dual programs.

**Accreditation
Information***

(add details)

Program Highlights*

MBA portion highlights:

- A holistic approach to business management starts with the role of the firm, its goals and markets, its strategic planning and positioning, and supply chain management.
- The explicit emphasis on a framework for the analysis of ethical issues and critical thinking.
- A greater emphasis on international studies through a specific course in international business and cross-cultural perspective and a greater internationalization of other courses.
- An evening MBA Program accommodating the needs of both full-time and part-time students by allowing students to complete their degree at a pace that fits their personal schedule.
- Students can take 2, 3 or 4 courses per semester enabling them to finish in the time frame of their choice. The cohort experience enables students to bond and network with each other in the program.
- Up to nine hours of electives provide greater flexibility in tailoring programs of study to each student's needs and interests.

CS portion Highlights:

Our master's program gives you the opportunity to study different areas, including:

- Design and analysis of algorithms.
- Operating and distributed systems.
- Computer architecture and networking.
- Computational geometry and robotics.
- Computer graphics and image processing.
- Programming languages and compiler construction.
- Artificial intelligence and expert systems.
- Database design, document analysis, and retrieval.
- Software engineering.

Career Opportunities*

This dual MBA/MSCS program is designed for those who seek to develop a solid understanding of business administration with a focus on advanced analytical skills in computer science. The program will provide students with the needed skills, knowledge, and tools to become visionary and creative business leaders with strong competency in computer science.

CS career possibilities:

Career Possibilities

Some of the jobs obtained by computer science graduate students are as follow:


- Programmer
- Scientific programmer
- System programmer
- Computer control programmer
- Interface programmer/designer
- Client/server software developer
- Computer graphics specialist
- Software publishing
- Software engineer
- Quality assurance engineer
- Telecommunications planner
- Artificial Intelligence
- Modeling/simulation
- Database designer/administrator

Please list the number, names and rank of faculty who will be supporting the instruction for this proposed program*


This is a dual degree, not a novel program. The faculty are from two different colleges. To see MBA faculty, please see: <https://www.unlv.edu/business/directory>; For Computer Science faculty: see <https://www.unlv.edu/cs/directory>.

The [Graduate Catalog](#) will need to be updated as a result of this proposal. Please use a comparable degree program in the current graduate catalog as a template. Follow the steps below to generate the program (catalog entry) text.

Follow these steps to build the new program curriculum:

1. Click on  "View Curriculum Schema." Click 'Add Core' and name your core (core names must match the existing format, do not use core names that do not currently exist in the catalog). Add any descriptive text (do not add courses until Step 2). Descriptive text is generally used in the following cores: Plan Description, Plan Admission Requirements, Plan Requirements, Plan Graduation Requirements. Click 'Save All Changes' (recommend doing this after each core). At this point you may preview your prospective curriculum. Repeat Step 1 until all cores have been added.

2. There are two options for adding courses: "Add Course" and "Import Course." For existing courses, click on "Import Course" and find the desired courses. For new classes going through a Curriculog Approval Process click on "Add Course" (this is for new courses only)-- a box will open asking you for the Prefix, Course Number and Course Title.

3. Click on  "View Curriculum Schema." Click on the area/header of the program where you would like to add courses. When you click on "Add Courses" it will bring up the list of courses available from Step 2.

Select the courses you wish to add. For removing courses click on the  and proceed.

Plan Description

This is a dual degree offered by the Lee Business School in conjunction with the Howard R. Hughes College of Engineering. The Lee Business School MBA Programs at UNLV are designed for those who seek global career and leadership opportunities. The world is changing quickly and today's business leaders are faced with new challenges in a complex business environment supported by new communication technologies and organizational structures. Success in the new global marketplace requires teams of executives working across functions and across borders. The MBA programs at UNLV prepare students to succeed in today's business environment by providing them with the needed skills, knowledge, and tools to become visionary and creative leaders. The program focuses on ethics and critical thinking, business communications, the role of the firm and its goals and markets, firms' strategic planning and positioning, supply chain management, international business culture, information technology, leadership, and teamwork. Our faculty and administration are committed to fulfilling the recently revised college mission: to advance the knowledge and practice of the disciplines that constitute business and administration and to foster the intellectual and economic vitality of Nevada and the Intermountain Region through teaching, research, and outreach. Our faculty are committed to continuous quality improvement of the curriculum. To achieve the best outcome, the faculty embrace no single teaching method, but rather employ a combination of methods best suited to the particular objectives of the course. Lectures, group discussions, seminars, case studies, computer simulations, and individual and group research projects are frequently used within courses and across the curriculum. The Master of Science - Computer Science program gives you the opportunity to study different areas, including: Design and analysis of algorithms Operating and distributed systems Computer architecture and networking Computational geometry and robotics Computer graphics and image processing Programming languages and compiler construction Artificial intelligence and expert systems Database design, document analysis, and retrieval Software engineering For more information about your program including your graduate program handbook and learning outcomes please visit the Degree Directory.

Plan Admission Requirements

Application deadlines Applications available on the UNLV Graduate College website. The admission requirements for the dual degree are the same as those stated under the original programs linked below: - MBA - MS CS See the Application Process section under the MBA and MS CS programs linked above. Applications will be reviewed by representatives of both Schools, in an independent process within each college. Applicants must be admitted to both schools to qualify for the dual degree program for that term. If denied by one program, the applicant will have the option of proceeding with a single degree program with departmental approval. All domestic and international applicants

must review and follow the Graduate College Admission and Registration

Requirements. Students are accepted into a degree program as described in the Graduate Catalog.

Plan Requirements

Total Credits Required: 60

Course Requirements

Total Credits Required for the Business Administration M.B.A.: 30

MBA Core Required Courses – Credits: 18

Complete 18 credits by completing all of the courses below:

MBA 761 Accounting for Managers	3
MBA 763 Leadership, Teams, and Individuals	3
MBA 765 Financial Decision Making	3
MBA 767 Market Opportunity Analysis	3
MBA 769 Applied Economic Analysis	3
MBA 775 Data Modeling and Analysis	3

Electives – Credits: 9

Complete 9 credits of electives from any 700-level course offered by the Lee Business School.

Capstone Course – Credits: 3

MBA 787 Strategic Management	3
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Total Credits Required for the Master of Science - Computer Science: 30

Computer Science Courses – Credits: 27

Complete 27 credits of 600- or 700- level Computer Science (CS) courses. Students may complete up to 3 credits outside of CS. Outside credits must be related to the student's research area and be approved by the department graduate committee.

Project – Credits: 3

CS 790 Master's Project

1 – 3

Degree Requirements

The MBA degree requires a minimum of 30 credits of approved course work. All requirements listed above must be completed successfully as defined by the Lee Business School and the Graduate College. All required courses are sequenced so students may acquire the tools and skill they need for success in the program. The student must pass at least 30 credits of 600- and 700-level courses with grades of C or better. Students must complete 15 credits of 700-level CS courses (excluding the project). Courses in which the student earns a grade lower than C cannot be included in their program, and the student's total grade point average (GPA) must be 3.00 or higher while in the program. A student whose GPA falls below 3.00 will be placed on academic probation. That student must have an overall GPA of at least 3.00 by the end of two subsequent semesters; otherwise the student will be separated from the graduate program. A student on probation will not be allowed to register for CS 690, CS 790, CS 791, CS 792, CS 799, or equivalent courses in another department. In consultation with their advisor, a student will organize a project committee of at least three departmental members. In addition, a fourth member from outside the department, known as the Graduate College Representative, must be appointed. An additional committee member may be added at the student and department's discretion. Please see Graduate College policy for committee appointment guidelines. The student must complete a computer science project and a report approved by their advisor and their project committee and pass a final oral examination over the project and relevant course work.

Graduation Requirements

The student must successfully complete the MBA capstone course. Students cannot graduate from one portion of the dual degree until the requirements for both are met. Students must apply to graduate from both programs for the same semester. The student must submit all required forms to the Graduate College as well as apply for graduation from both degrees up to two semesters prior to completing their degree requirements. The student must successfully complete a master's project. The student must submit and successfully defend their project by the posted deadline. The defense must be advertised and is open to the public.

Please describe the culminating experience for this program, including course prefix, number, name and any further information.*

CS 790 is the culminating capstone course for the MSCS portion of this dual degree, whereas MBA 787 is the culminating course for the MBA portion. These courses should be taken during the last year of the student's enrollment in these programs, respectively.

The [Degrees Directory](#) provides current and consistent degree information. Submission of this form indicates acknowledgment and understanding that every department is responsible for creating and maintaining accurate and updated program information on the UNLV Degrees Directory. Departments must also provide and maintain program handbooks which are housed on the Degrees

Directory: www.unlv.edu/academics/degrees

Handbooks should be submitted to the Graduate College for approval and to be posted to the Degrees Directory entry within 30 days of the issuance of the Provost Alert. Failure to do so may result in the closure of the program's application.

Degrees Directory Program Entry*


Check this box to acknowledge the above statement.

Student Authentication – Federal guidelines require that distance education and correspondence programs utilize mechanisms that verify student identity. UNLV strives to insure that this is done with all programs, not just those delivered via distance education. Describe how this program will verify student identity. (for more information on student authentication see the UNLV [Office of Online Education](#), [WICHE](#), and [SARA](#))

Describe how this program will verify student identity (online portion)*

NSHE ID number.

3. LAUNCH proposal by clicking  in the top left corner.

4. Finish the launch of your proposal by clicking the icon  located in the Proposal Toolbox on left side at top. Make your decision, comment is optional, and click on "Make decision".


You can check the status of the proposal by clicking  in Proposal Toolbox to verify that the

proposal has gone to the next step.

IV. Department Vote Information

Note: This section is to be filled out by the Department Chair on behalf of the committee.

(The role has been assigned to the corresponding person on this step. If incorrect, please notify GradCurriculum@unlv.edu)

1. Review the proposal. Discuss and make appropriate revisions.
2. Fill in vote information.
3. Then go to the proposal toolbox at the top right side. Click on  and select the corresponding decision for the committee. This will enable the proposal to go to the next person on the workflow.

You can check the status of the proposal by clicking  in Proposal Toolbox to verify that the proposal has gone to the next step.

If Dual or Interdisciplinary: add votes from all departments/colleges involved

(e.g. "Dpt A: / Dpt. B")

Date faculty voted on proposal September 23, 2020


Result of vote Approved

Manner of vote Yes: 45; No: 4; Abstain: 0

V. Unit Vote Information

Note: This section is to be filled out by the College Committee Chair on behalf of the committee.

(The role has been assigned to the corresponding person on this step. If incorrect, please notify GradCurriculum@unlv.edu)

1. Review the proposal. Discuss and make appropriate revisions.
2. Fill in vote information.
3. Then go to the proposal toolbox at the top right side. Click on  and select the corresponding decision for the committee. This will enable the proposal to go to the next person on the workflow.

You can check the status of the proposal by clicking  in Proposal Toolbox to verify that the proposal has gone to the next step.

If Dual or Interdisciplinary: add votes from all departments/colleges involved

(e.g. "College A: ... / College B ...)

Date faculty voted on proposal 2/9/2021

Result of vote 4/0/0

Manner of vote email

VI. Processing Notes (Graduate College/Registrar Use Only)

Program Alerts (E.g. **View Program Disclaimer)**

PS Processing Notes

PS Processing Date

Initials

Aalog Processing Notes

Aalog Processing Date

Initials

Comments for Dual Degree: Master of Business Administration & Master of Science - Computer Science

Curriculog	3/15/2021 2:55 pm Reply
Emily Lin has approved this proposal on Graduate College Dean.	
Curriculog	3/2/2021 1:52 pm Reply
Graduate Curriculum has approved this proposal on Graduate Programs Committee.	
Gregory Moody	3/2/2021 1:14 pm Reply
14-0 in favor. WebEx March 2, 2021	
Pending approval of learning outcomes for CS by Provost's office	
Curriculog	3/2/2021 1:14 pm Reply
Gregory Moody has approved this proposal on Graduate Programs Committee.	
Curriculog	2/12/2021 11:03 am Reply
Mohamed Trabia has approved this proposal on School/College Associate Dean/ Dean.	
Curriculog	2/9/2021 10:38 pm Reply
Business Associate Dean has approved this proposal on School/College Associate Dean/ Dean.	
Curriculog	2/9/2021 10:36 pm Reply
Business Associate Dean has approved this proposal on School/College Associate Dean/ Dean.	
Curriculog	2/9/2021 10:36 pm Reply
Business Associate Dean has approved this proposal on School/College Associate Dean/ Dean.	
Curriculog	2/9/2021 10:35 pm Reply
Business Associate Dean has approved this proposal on School/College Committee.	
Curriculog	2/9/2021 12:11 pm Reply
Melissa Morris has approved this proposal on School/College Committee.	

Curriculog

2/9/2021 11:47 am [Reply](#)

MBA Director has approved this proposal on School/College Committee.

Melissa Morris

2/9/2021 11:32 am [Reply](#)

The committee has voted to approve this proposal.

Curriculog

2/9/2021 11:32 am [Reply](#)

Melissa Morris has approved this proposal on School/College Committee.

Curriculog

2/7/2021 8:45 pm [Reply](#)

Ian McDonough has approved this proposal on School/College Committee.

Curriculog

2/5/2021 3:58 pm [Reply](#)

Han-Fen Hu has approved this proposal on School/College Committee.

Curriculog

2/5/2021 3:07 pm [Reply](#)

Han-Fen Hu was added to the Lee Business School Graduate College/School Curriculum Committee role.

Curriculog

2/5/2021 3:06 pm [Reply](#)

Ian McDonough was added to the Lee Business School Graduate College/School Curriculum Committee role.

Curriculog

2/5/2021 3:05 pm [Reply](#)

System Administrator Graduate Curriculum has restarted the School/College Committee step as a result of participants being added to or removed from the step.

Curriculog

2/5/2021 9:35 am [Reply](#)

Jianxin Chi has approved this proposal on School/College Committee.

Curriculog

2/5/2021 7:29 am [Reply](#)

Kimberly Charron has approved this proposal on School/College Committee.

Curriculog

2/4/2021 10:10 pm [Reply](#)

Gregory Moody has approved this proposal on School/College Committee.

Curriculog	2/4/2021 9:15 am Reply
MBA Director has approved this proposal on Department Chair.	
Curriculog	2/3/2021 10:08 am Reply
CS Chair has approved this proposal on Department Chair.	
Curriculog	1/29/2021 2:23 pm Reply
Computer Science Graduate Coordinator has approved this proposal on Graduate Coordinator.	
Curriculog	1/28/2021 7:25 am Reply
MBA Director has approved this proposal on Graduate Coordinator.	
Curriculog	1/27/2021 4:08 pm Reply
Graduate Curriculum has approved this proposal on Technical Review.	
Graduate Curriculum	1/19/2021 9:30 am Reply
Approved together with VPAP stage reviewers	
Curriculog	1/19/2021 9:30 am Reply
Graduate Curriculum has force approved this proposal.	
Graduate Curriculum	1/19/2021 9:16 am Reply
Approved together with originator	
Curriculog	1/19/2021 9:16 am Reply
Graduate Curriculum has force approved this proposal.	
Curriculog	12/4/2020 8:24 am Reply
Graduate Curriculum has force rejected this proposal.	

Graduate Curriculum

12/4/2020 8:16 am [Reply](#)

Please note below general guidelines for the needed reviews (an email has been sent directly to the proposer):

1. Remove all mentions of "same as," of "this is not a new degree," etc.
2. Consider that fields such as Highlights, Career Outcomes, and so forth, will be the source for the later display of the dual across the degrees directory and eventually other communications - so these fields need to be edited to reflect exactly what applicants will see.
3. Accreditation fields also need revision, and can be linked to the original program, but must be mentioned in the rationale if standards are still met even with the credit reduction/structural differences in content.
4. Clarify changes in the learning outcomes from the changes in courses/credits. So we must review the original learning outcomes (of both parts of the dual), check if any of them are maybe connected to certain content or certain amount of credits and specific specializations, etc., and make a parallel to the dual, indicating if there are changes, and then why or why not - very clearly.
5. Communicate all these details, and all details needed, for both "parts"/programs in the dual. Both programs need to be covered in the proposal with equal emphasis/detailing in every field.

for assistance please contact gradcurriculum@unlv.edu

Curriculog

12/4/2020 8:16 am [Reply](#)

Graduate Curriculum has rejected this proposal on VPAP/ Graduate College Dean Review Step.

Curriculog

11/19/2020 3:07 pm [Reply](#)

MBA Director has approved this proposal on Originator.

Curriculog

10/22/2020 9:51 am [Reply](#)

MBA Director has launched this proposal.

Curriculog

10/22/2020 9:47 am [Reply](#)

MBA Director imported from the map 2021-2022 Working Graduate Catalog into the following proposal fields: I. General Information: Program Type, I. General Information: Degree Type, I. General Information: Degree Name, III. Program Information: Prospective Curriculum.