



Master of Science in Data Science

Catalog effective dates:
August 2016 May 2017

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The University of New Haven is a private institution and is approved to operate by the California Bureau of Postsecondary Private Education.

Supported by GalvanizeU which is headquartered at 44 Tehama, San Francisco, CA 94105. Telephone number: 844-457-7706. Website: galvanizeu.newhaven.edu

As a prospective student, you are encouraged to review this catalog prior to signing an enrollment agreement. You are also encouraged to review the School Performance Fact Sheet, which must be provided to you prior to signing an enrollment agreement.

Any questions a student may have regarding this catalog that have not been satisfactorily answered by the institution may be directed to the Bureau for Private Postsecondary Education at 2535 Capitol Oaks Drive, Suite 400, P.O. Box 980818,

Approval to Operate in California

The University of New Haven and its Master of Science in Data Science program have been approved for delivery by the BPPE. Approval to operate means compliance with State standards set forth in the CEC and 5, CRC.

The University has no petition in bankruptcy, is not operating as a debtor in possession, has not filed a petition within the preceding five years, and has not had a petition in bankruptcy filed against it within the proceeding five years that resulted in reorganization under Chapter 11 of the US Bankruptcy Code (11U.S.C.Sec.1101 et seq.)

Our Mission Statement

The University of New Haven is a student-centered comprehensive university with an emphasis on excellence in liberal arts and professional education. Our mission is to prepare

History

The University of New Haven was founded in 1920 as the New Haven YMCA Junior College, a division of Northeastern University. It became New Haven College in 1926 by an act of the Connecticut General Assembly. For nearly forty years, the College held classes in space rented from Yale University.

In September 1958, the College completed construction of a classroom building on Cold Spring Street, New Haven, for its daytime engineering programs. That same year, the College received authorization from the Connecticut legislature to offer the bachelor of science degree in the fields of business, accounting, management, and industrial engineering. Although the student body on the new Cold Spring Street campus numbered 1,000, d. To meet the needs of the College and the local community, the Board of Governors purchased, in 1960, three buildings and twenty-five acres of land in West Haven formerly belonging to the New Haven County Orphanage.

The combination of increased classroom space and four-year degree programs sparked a period of tremendous growth in enrollment and facilities. In 1961, the year after the College moved to West Haven, the graduating class numbered seventy-five. Fifty-one years later, the figure has climbed to 1,611 for all of 2012.

New Haven College received full accreditation for its baccalaureate programs from the New England Association of Schools and Colleges in 1966. In 1969, the College took a major step forward with the addition of the Graduate School. Initially offering programs in business

The University of New Haven has five academic colleges, each with its own faculty. Through its College of Arts and Sciences, College of Business, Henry C. Lee College of Criminal Justice and Forensic Sciences, Lyme Academy College of Fine Arts, and Tagliatela College of Engineering, UNH offers over 80 undergraduate and graduate degree programs.

Tagliatela College of Engineering

Few professions can match engineering for the number of professions that can match its impact on society.

Program Description and Objectives

The 30-credit Master of Science in Data Science prepares students for positions data science, analysis, and visualization. The program addresses the intersection of three areas driving data science: technologies, analytics and business needs. Students completing the degree will manage data-driven decision-making and use, analyze, and evaluate technologies and techniques in an enterprise setting. Graduates will be able to design innovative solutions to data science challenges taking economic and societal interests into

There are other job/career titles/options for graduates of this degree program. The US Bureau of Labor Statistics (BLS) does not currently collect data specifically on these titles. Instead these workers are classified as statisticians or computer programmers, or in other occupations. Please visit the MS

The Curriculum

The Master of Science curriculum and learning experience comprises 30 credits. The language of instruction is English.

Courses

DSCI 6001: Mathematics for Data Scientists

Prerequisite: Familiarity with linear algebra, calculus, and some object oriented programming language is recommended. Provides a review of core skills in linear algebra, analysis, statistics, and differential calculus with a focus on hands on applications for data science use cases. 3 credit hours.

DSCI 6002: Data Exploration, Feature Engineering, and Statistics for Data Scientists

Prerequisite: Familiarity with linear algebra, calculus, and some object oriented programming language is recommended. Introduction to the infrastructure and architecture of data warehousing systems, with a focus on querying, exploring, understanding and transforming data features for statistical and machine learning applications. 3 credit hours.

DSCI 6003:

DSCI 6051: Data Science Capstone Project

2. Official transcript(s) from all colleges and universities attended
3. Three letters of recommendation. Letters should come from persons familiar with the applicant's academic or work-related skills, performance, and promise. Typically, recommenders are current or former professors and/or employers.
4. Personal statement. In the 1-2 page Personal Statement applicants should address: 1) reasons for pursuing an advanced degree in the field of data science and 2) professional goals and how a degree from our program relates to those goals.
5. Resume

Please note that application materials are the property of University of New Haven. An application form is accessible online at www.galvanizeu.newhaven.edu.

The Master of Science in Data Science program permits rolling admissions throughout the

and internship. Each student has an appointed faculty advisor for the duration of the projects with whom they meet regularly to ensure all students are getting all the resources and support that they need in order to complete the projects successfully.

Academic Records

For each student enrolled in the Graduate School, academic records are maintained and supporting documents such as test scores, transcripts of undergraduate and other prior study, letters of recommendation, course schedules, petinsudules, petinsudupGrad point por

therein, should inquire directly. A make-up test fee may be assessed when a student is permitted to make up an announced test during the term or to take an end-of term exam at a time other than the scheduled time. In either case, the make-up examination fee will be paid by the student.

Academic Standards

In Graduate School satisfactory progress is defined as a cumulative QPR of 3.0 or greater.

Course Grading System

The Graduate School uses the following grading system:

Superior performance		
	A+	4.00 quality points
	A	4.00 quality points
	A-	3.70 quality points
Good performance:		
	B+	3.30 quality points
	B	3.00 quality points
	B-	2.70 quality points
Passing performance:		
	C+	2.30 quality points
	C	2.00 quality points
	C-	1.70 quality points
Failure:		
	F	Zero quality points
Withdrawal from a course:		
	W	Zero quality points
Incomplete:		
	(See information on below regarding incomplete courses.)	Zero quality points
	INC	

Academic Standing, Probation and Dismissal

Good academic standing i

If transfer credit is approved, then students are required to take additional elective course to meet the minimum 30-

A graduate course is acceptable for transfer to UNH if the following conditions are met:

The course is from a regionally accredited U.S. institution or from a foreign post-baccalaureate institution recognized by its local Ministry of Education as a degree-granting institution.

The student received a grade of B- (2.7 on a 4-point scale) or better (or a Pass in a Pass/Fail course, provided the institution documents that a Pass is equivalent to a B- or better).

The course has not been used previously to contribute to another credential.

The equivalency of a transferred course to a UNH course is approved by the Registrar and by the chair of the department offering the equivalent course at UNH. The Registrar maintains an updated listing of courses from other institutions for which transfer credit has been

in order to assure that the transfer co

Courses in disciplines for which UNH has no equivalent may be approved for transfer as

Graduate students currently matriculated at the University must secure written approval before taking courses at another institution if they wish to transfer credits into their UNH program. Authorization for transfer of courses must be obtained from the academic

UNH. The Course Transfer Authorization form must be obtained online, approved by the department, and returned to the

Please note: the MS Data Science program has a 30-credit residency requirement.

Crediting Examinations

At this time the Master of Science in Data Science does not use crediting examinations or award credit for prior experiential learning due to the nature of the program.

apply to a current degree program. You are advised to speak to the Academic Department as to the validity of those course credits.

Students may not add a course after the first class meeting without formal permission of the instructor.

Leave of Absence

Graduate matriculated students may interrupt continuous enrollment by electing to take a leave of absence from the University for medical or personal reasons without severing their connection with the University of New Haven. Before taking a leave of absence, students are encouraged to discuss their particular situation with their program coordinator, academic advisor, or the dean of their college. The policies regarding leaves of absence are as follows:

Non-international students must file for a leave of absence through the Registrar Office; international students must initiate the leave of absence through the International Student Services Office.

Students who are on University disciplinary probation are not eligible for a leave of absence.

A student who has been academically dismissed from the University is not eligible for a leave of absence until properly reinstated.

A student who has withdrawn as a degree candidate is not eligible for a leave of absence. If a student withdraws while on leave of absence, the leave is invalidated. Leaves of absence are not required or granted for summer terms.

Normally, leaves are not approved for a period longer than two terms. Under extraordinary circumstances a leave of absence may be approved for a maximum of two years.

A student who wishes to return later than originally stated on the leave of absence

absence, not to exceed the maximum period as outlined above.

Students receiving financial aid are encouraged to contact the Financial Aid Office before taking a leave of absence.

A student who fulfills the conditions of an approved leave of absence may return to the University and register for classes without applying for readmission; such students may preregister for the semester in which they plan to return.

A student who does not apply for an extension or who exceeds the maximum period but wishes to return to the University must be formally readmitted by Graduatestm12 0 612 792009

The institution reserves the right to change class schedules or instructors at any time. It further reserves the right to cancel any course and, in such cases, will refund course tuition to the students enrolled.

Grievance Procedure

The procedure for investigating formal grievances against faculty members is governed by the General Grievance Committee, empowered by the Faculty Constitution. This committee is accessible to all students at UNH, and its policies apply to all instructors at UNH. Its jurisdiction extends to all grievances involving faculty except for allegations of racial/ sexual harassment (a separate committee addresses those issues) and cases handled by the student discipline system.

A student who wishes to initiate a grievance against an instructor can obtain a copy of the to document the grievance, from the offices of the Dean of Students, the Faculty Senate, the Provost, the Grievance Committee Chair, or on the UNH website. There is a limit of one year between the time the grievous event happens and the time the student must first contact the Grievance Committee.

How to Pursue a Grievance

Student grievances against an instructor demand a sincere effort towards resolution, from both the student and the instructor, before they reach the committee. The student should first speak with the instructor regarding the complaint. If the issue is not resolved, consult with the chair of the department which employs the instructor. Normally, complaints can be resolved at this level. If the issue is not resolved, consult with the dean of the school which employs the instructor and then the Office of the Provost. The form used to initiate a grievance against a faculty member provides space for each of these individuals to document what was accomplished at each of those levels. This important information allows the committee to fully effectively.

Interacting with the Grievance Committee

grievance is forwarded to the Grievance Committee. The committee follows a formal procedure for gathering evidence and scheduling hearings as necessary. Both the instructor and the student have special rights and obligations during this process, so it is important to obtain a copy of the statement of Policies and Procedures. All of the The conclusions of the committee are binding and are reported to the Provost for implementation.

Notification of Family Educational Rights and Privacy Act (FERPA)

The Family Education Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records, as follows:

Drug-Free Policy

In accordance with federal law concerning a drug-free campus environment, the relevant University policy and regulations are provided to all current students and employees. The information is also available upon request at the human resource department.

Student Right-to-Know and Campus Security Act

In accordance with Connecticut Public Act 90-259 concerning campus safety and the 1990 federal law PL101-542 (the Student Right-to-Know and Campus Security Act), all colleges and universities receiving state and federal financial assistance are required to maintain specific information related to campus crime statistics and security measures, annually provide such information to students and employees, and make the data available to prospective students and employees upon request.

At the University of New Haven, the required information is compiled and published annually by the University Police Department.

Tuition, Fees, and Financial Aid

Following are the tuition, fees, and charges effective for the Fall 2016 term. The University reserves the right, at any time, to make whatever changes it may deem necessary in admission requirements, fees, charges, tuition, policies, regulations, and academic programs

Office website for the most current up to date rates.

The estimated schedule of charges for MS Data Science program for the 2016-2017 Academic Year is \$49,250. Other fees listed in the table below may apply or add to the cost.

Tuition, Fees, and Financial Aid Tuition and fees 2016 - 2017

	Per Credit Hour	Per Occurrence	Per Semester	Per Program	Per Year
Tuition	\$1600				

General Student Fee

The general fee provides a partial contribution supporting essential infrastructure, facilities and institutional services necessary to promote student learning. This fee supports technology infrastructure initiatives including, but not limited to, networks, electronic information resources, computer laboratories and smart technology classrooms. This fee also covers the cost of a private GitHub account and private cloud server services. This fee also covers facility access and

Students with an outstanding balance may not register or receive University services including academic transcripts.

Payment of Tuition and Fees

All newly accepted students must submit a nonrefundable, nontransferable commitment deposit of \$300 to reserve their space in the program. This commitment deposit will be -refundable and will be forfeited should you not enroll in classes in the term for which you paid the deposit. s upon registration. Payment in full is due on the subsequent 13th day of the month after registration occurs. If the payment

Refund Policy Regarding Withdrawing or Dropping from Courses

Tuition may be refunded in full when a class is closed, full, canceled or when the university rejects the enrollment application.

Students have the right to cancel the Enrollment Agreement and obtain a refund of charges paid through attendance at the first class session, or the seventh day after enrollment, whichever is later.

The refund policy for graduate students who withdraw from any course or from any program is as follows:

Before Courses Begin 100% Refund

1st Week 100% Refund

2nd Week 60% Refund

3rd Week 40% Refund

4th Week 20% Refund

After 4th Week 0% Refund

Academic Requirements for the Retention of Financial Aid Eligibility

In accordance with federal regulations all financial aid recipients are required to make satisfactory academic progress (SAP) towards their degree and be in good academic standing in order to remain eligible to receive financial aid. In other words, you must achieve a certain number of credits each year, successfully earn 67% of the credits you attempt,

review your academic transcript to make sure that you have achieved the required pace/cumulative GPA, appropriate number of credits, and are not on academic probation. If you do not make satisfactory academic progress then you will not be eligible to receive financial aid for the next school year until you are in good standing. All financial aid including federal student loans, federal PLUS loans, grants, scholarships, and work study are subject to meeting the minimum SAP standards set by the university.

Graduate students must successfully complete all the credits for which financial aid has been awarded, as indicated on your receipt of a passing grade (A to D-). Grades of F (Failure), W (Withdrawal), U (Unsatisfactory), DNA (Did Not Attend), or INC (Incomplete) are not considered successful completion. The only exception is if a student receives an INC in their Thesis, Research Project, Practicum, or Internship. The university allows 3 months for completion of those courses after the end of a term. In some extenuating circumstances the student may be allowed up to one year to complete the INC. In addition, all graduate students must maintain a minimum 3.0 cumulative quality point ratio (QPR) in order to be in good academic standing. [Click here](#) for additional information.

Financial Aid Office will mail a letter to each student who fails to maintain the minimum academic progress standards detailing their deficiencies and the steps for reinstating financial aid eligibility. Students who have lost their financial aid eligibility have the opportunity to appeal for reinstatement.

The student must write a detailed letter explaining the extenuating circumstances (death, divorce, illness, etc.) that hindered them from making satisfactory progress. The letter must come complete with documentation of the extenuating circumstances (death certificates,
 t to make satisfactory academic progress at the next evaluation period. If your appeal includes information falling under TITLE IX of the Higher Education Act of 1972 we may be required to disclose it to other university officials. Please [click here](#) and review the information provided on the university's TITLE IX information page.

Decisions to reinstate eligibility or deny the appeal are made in a fair and equitable manner based on the information the student provided in the letter, the supporting documentation, and a review of the academic record. If the financial aid appeals committee approves the appeal then the student will be awarded their financial aid package for one term following the term, the student must meet the Satisfactory Academic Progress requirements to be eligible for aid for future terms. If the appeals committee upholds the loss of financial aid then the student e.

degree or graduate certificate is within five years of the date of completion of the first course following formal application to the program.

Student Services

International Services Office

The International Services Office (ISO) advocates for and advises the international student population at the University of New Haven on U.S. immigration and visa-related issues. The office also supports and facilitates the transition of international students to the university community.

The ISO promotes and celebrates individuals in an intercultural environment. The ISO is a center where international students can seek advice on the intersection of academics and U.S. immigration regulations, and social and acculturation issues. In addition, the ISO provides orientations and workshops on topics of interest such as immigration requirements, employment, and cross-cultural communication. Our overall vision is to foster global awareness throughout the university community.

The staff assists students with immigration matters and provides liaison with sponsoring agencies and foreign governments. The ISO provides information on travel to and from the United States and advises students on academic, social, and cultural adjustment. For more information, visit <http://www.newhaven.edu/iso>.

Library

The Marvin K. Peterson Library provides robust online resources and library services for UNH students, faculty and staff 24 hours a day/7 days a week wherever they might be located. The Marvin K. Peterson Library has served UNH students and faculty in distance learning programs for over 20 years and has well-developed networks and resources to assist in research and library services. The web page [Library Services for Distance Learners](#) describes the resources and services and indicates how additional help can be obtained to ensure full library support.

The Marvin K. Peterson Library holds over 300,000 volumes any of which can be requested by distance learning students and faculty .33 34so ur over o 34soe th

Faculty also make available ancillary research and study materials for their students through E-reserves in the Library folder in Blackboard, our course management system. Instructions on how faculty can accomplish this are available in the [How Do I Place Electronic Material on Course Reserve](#) faculty guide, which also includes information regarding copyright and fair use.

Professional I

ability to find, evaluate, and use information effectively are vital skills that students need to master in order to be academically successful at UNH and later, to make informed decisions throughout their lives. UNH Information Literacy Librarians believe that these skills are best learned and retained when taught in conjunction with specific class research assignments where they can be immediately applied. If there is a research assignment, librarians encourage faculty to partner with them in our "Embedded Librarian Program." This program integrates information literacy and library instruction directly into course content[lea]-5(rne)-3g

University of New Haven students may download a [Transcript Request Form](#) and submit it to the Registrar's Office for processing. Detailed information is available on the form.

Please note: Upon receipt of any [Transcript Request Form](#), the university will issue only **unofficial** copies to students. **Official transcripts will only be issued from the university directly to third parties on behalf of the student.**

Campus Police - Clery Annual Security and Fire Safety Report **[Clery Disclosure Information](#)**

Veterans Affairs

which serves as a liaison between UNH student veterans and the Department of Veterans Affairs (DVA). The Office provides forms for DVA benefits, advises students on procedural requirements, and certifies enrollment. Both the DVA and the Registrar

For information on eligibility and payment, or to apply for benefits, or to transfer your existing benefits to UNH, contact the DVA.

Department of Veterans Affairs
Regional Office
P.O. Box 4616
Buffalo, N.Y. 14240-4616
1.888.GI.BILL.1 (1.888.442.4551)
<http://www.va.gov/Education/>

West Haven, CT. If you have questions or concerns, contact the VA Certifying Official during office hours, Monday through Friday, 8:30 a.m. to 4:30 p.m. EST, at 203.932.7388 or email icasarella@newhaven.edu. The fax number is 203.932.6096.

Consumer Information for Graduate Students

Academic Programs & Student Attainment Information:

Information regarding UNH's [accreditation and the current reaccreditation information](#)

Information regarding the [special facilities and services available to disabled students](#) at UNH

Information regarding the [degree programs offered at UNH](#)

Information regarding the [certificate programs offered at UNH](#)

Information regarding the [instructional, laboratory, and other physical plant facilities](#) associated with the academic programs at UNH

A list of the UNH [faculty and other instructional personnel](#)

Information regarding [graduation and completion rates for UNH athletes](#) and [academic success](#) rates for athletes

UNH's Facilitiesgril g

