Master of Science in Data Science

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University of New Haven
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University of New Haven

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- 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 signed 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, Sacramento, CA 95833, www.bppe.ca.gov, toll-free telephone number (888) 370-7589 or by fax (916) 263-1897.
- A student or any member of the public may file a complaint about this institution with the Bureau for Private Postsecondary Education by calling (888) 370-7589 toll-free or by completing a complaint form, which can be obtained on the bureau's internet web site www.bppe.ca.gov.

The University of New Haven is committed to affirmative action and to a policy that provides for equal opportunity in employment, advancement, admission, educational opportunity, and administration of financial aid to all persons on the basis of individual merit. The University of New Haven does not discriminate in admissions, educational programs, or employment against any individual on the basis of that individual's sex, race, color, religion, age, disability, sexual orientation, or national or ethnic origin. It is our policy not to discriminate on the basis of gender in our admissions, educational programs, activities, or employment policies, as required by Title IX of the 1972 Educational Amendments.

Inquiries regarding nondiscrimination, affirmative action, equal opportunity, and Title IX may be directed to the University's Equal Opportunity/Affirmative Action officer at 300 Boston Post Road, West Haven, CT 06516; phone 203.932.7265. Persons who have special needs requiring accommodation should notify the University's Campus Access Services Office at Voice/TDD number 203.932.7332.

About the University of New Haven

The University of New Haven is a private, top-tier comprehensive institution recognized as a national leader in experiential education. Founded in 1920 on the campus of Yale University in cooperation with Northeastern University, UNH moved to its current West Haven campus in 1960 and opened its Orange, CT campus in January, 2014. The University operates a satellite campus in Tuscany, Italy, and offers programs at several locations throughout Connecticut and in New Mexico. In 2014, the University entered into a partnership with GalvanizeU. GalvanizeU is a revolutionary new approach to engineering education with a faculty of leading practitioners and mentors, and unparalleled network of industry partnerships. In the winter of 2015 the University enrolled the inaugural class for the Master of Engineering in Big Data in San Francisco. The program was renamed Master of Science in Data Science in 2015.

Accreditation

The University of New Haven is a private, coeducational, non-sectarian, not-for-profit, independent institution of higher learning, chartered by the General Assembly of the State of Connecticut.

The University is fully accredited by the New England Association of Schools and Colleges (NEASC). Accreditation of an institution of higher education by the New England Association indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer review process. An accredited college or university is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by the New England Association is not partial but applies to the institution as a whole. As such, it is not a guarantee of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance about the quality of opportunities available to the students who attend the institution.

Inquiries regarding accreditation status by the New England Association should be directed to the administrative staff of the institution. Individuals may also contact:

Commission on Institutions of Higher Education
New England Association of Schools and Colleges
209 Burlington Road
Bedford, MA 01730-1433
(781) 271-0022
cihe@neasc.org

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.

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 our students to lead purposeful and fulfilling lives in a global society by providing the highest-quality education through experiential, collaborative and discovery-based learning.

Vision

For nearly a century, the University of New Haven has equipped students with the practical skills and critical knowledge necessary for success in an array of professional pursuits. In turn, our graduates have become the business executives, engineers, scientists, teachers and public officials leading and supporting our communities.

As knowledge expands and these pursuits become more complex, a university's approach to education must correspondingly change. A new generation of technologically sophisticated students learns differently and requires refashioned forms of teaching. They collaborate, find and share knowledge instantly, and fully immerse themselves in the educational process. They think globally and don't recognize academic silos. They increasingly aim to apply what they learn to their chosen careers, even before graduating, by engaging in internships and research projects. Universities must facilitate this discovery-based learning and prepare students for success in today's rapidly changing economic and technological landscape.

A national leader in experiential education, the University of New Haven is on the vanguard of this revolution. We seek to harness new advances in technology, reshape teaching and learning, and foster an educational environment where students benefit by creating, doing and achieving. We also will build upon our historical academic strengths in science, engineering and business—and, more recently, in security and public safety. We will enhance these programs and discover new ways of creating interdisciplinary connections and promoting strategic partnerships.

Our vision is to become one of the Northeast's premier comprehensive universities offering a technologically advanced, experience-based, outcomes-focused education, one that produces graduates who will use their knowledge and skills to strengthen communities throughout our region, our nation and our world.

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 fewer than 200, the College's facilities were fast becoming overcrowded. 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 administration and industrial engineering, the Graduate School expanded rapidly.

Today, twenty-six master's programs, along with a wide variety of graduate certificates, offer the approximately 1,700 graduate students many choices for post-baccalaureate study.

In 1970, on the fiftieth anniversary of its founding, New Haven College became the University of New Haven, reflecting the increased scope and the diversity of academic programs offered. Today, the University offers a rich variety of undergraduate and graduate degree programs in five schools: the College of Arts and Sciences, the College of Business, the Tagliatela College of Engineering, the Henry C. Lee College of Criminal Justice and Forensic Sciences, and the Graduate School.

Undergraduate and graduate courses and programs are offered on the Main Campus in West Haven and at other off-campus. Graduate courses in selected fields are offered at our Southeastern campus in New London and in Waterbury, Shelton, and Newington. The graduate program in national security is also offered at a satellite location in New Mexico.

The University's Academic Colleges

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 challenge and excitement, and the changing face of engineering will shape the world in the twenty-first century — a world of exotic materials, new sources of energy, staggering telecommunications and computing capabilities, cybernetic factories, and public works needed by society. The mission of the Tagliatela College of Engineering (TCoE) is to prepare individuals for professional practice in diverse engineering areas, computer science, and chemistry. In addition, TCoE prepares individuals for lifelong education in their professional careers and for such formal post-baccalaureate education as their inclination and professional growth require.

Masters of Science degree programs are offered on the main campus in West Haven, CT in computer science, electrical engineering, environmental engineering, engineering management, industrial engineering, and mechanical engineering. A dual degree program combines the M.B.A. with the M.S. in industrial engineering. A master of science in data science is offered in San Francisco, CA.

The Master of Science in Data Science

In the fall of 2015, the Master of Engineering in Big Data became the Master of Science in Data Science. The name change reflects the program's increased focus on machine learning and statistical analysis skills. Students enrolled in this master's degree program will develop the advanced technical abilities expected of high-performing data scientists, while also developing data science communication and leadership skills that were the focus of the Big Data curriculum.

Practicing professionals have adopted "data science" as the preferred term to describe their field and have identified the essential skills required of high-performing data scientists. New courses added to the Master of Science in Data Science curriculum provide these key skills, including deep machine learning and statistical analysis, along with key data skills needed to work with unstructured data and Natural Language Processing (NLP). Students enrolled in the program also will strengthen their fundamental mathematics competencies.

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 account. They will work in teams and communicate effectively leveraging networks and knowledge with ethical behavior. They will also manage projects and time effectively, respect and embrace diversity and cultures, and be flexible and adaptive.

Learning Outcomes

Students completing the Master of Science in Data Science will be able to:

1. Identify and appraise a select industry or public sector challenge that can be solved through data science applications
2. Design a data science solution to the identified industry or public sector challenge
3. Communicate a data science solution to the identified industry or public sector challenge
4. Implement an end-to-end data science solution that addresses a real-world industrial or public need
5. Evaluate and use distributed systems engineering, demonstrating the ability to analyze, evaluate and design technologies in an enterprise setting

The program is designed for those intending to work in teams of professionals dealing with data science management, analysis, and visualization. The program is most closely related to the MS in Computer Science, which is a more traditional computer science program. The program differs from computer science in that, in addition to a technical background, the proposed program also develops management and leadership skills and competencies relating specifically to the analysis and treatment of data.

From the US Department of Labor. The Preliminary 2018 SOC Detailed Definitions, on behalf of the Standard Occupational Classification Policy Committee (SOCPC), the Detailed Occupational Code for Data Scientist is 15-2050 (broad) and 15-2015 (detailed).

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 Data Science program page on the website, www.galavanizeu.newhaven.edu, for a list of employment positions and salaries determined to be within the field of data science.

Learning Environment

One important element in the Galvanize program model to support the UNH masters of science in data science program is the learning space, supplementing standard classrooms, where student learning takes place and where students interact with faculty, industry collaborators, and other students. This is a flexible, open space, supplementing standard classrooms, where students, faculty and others can brainstorm ideas, work on projects, develop prototypes, and relax with a cup of coffee.

Another feature of our program delivery model is that it is learner focused. Informed by Felder's Learning Style inventory, instructional faculty engage in capacity building in teaching/learning topics to assist them in developing strategies and course material that address all learning styles, thereby decreasing attrition and increasing retention/graduation rates, one of the biggest problems in engineering education worldwide.

These carefully selected elements, delivered in a dramatically expansive physical environment, combine to create a new breed of engineer—smart, diverse, creative, and passionate about making a difference in the world.

All Classes will be held at the following address:

44 Tehama Street
San Francisco, CA 94105

Distance Education

The institution does not currently offer the Master of Science in Data Science through distance education.

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: Machine Learning and Data Analysis I
Prerequisites: DSCI 6001 and DSCI 6002 or permission of instructor. Essential elements of Machine Learning, with a focused introduction to core supervised and unsupervised learning algorithms, statistical modeling, and key best practice techniques for building well trained models. Designed with coding lab practice to develop implementation skills. 3 credit hours.

DSCI 6004: Unstructured Data and Natural Language Processing
Prerequisites: DSCI 6001 and DSCI 6002 or permission of instructor. Essential Data Science skills involved in working with unstructured data: transforming it into structured data types able to be analyzed, processed and used for Machine Learning and Information Retrieval algorithms. Material focuses on Natural Language Processing and classification techniques used in text mining. 3 credit hours.

DSCI 6005: Machine Learning and Data Analysis II
Prerequisites: DSCI 6003 and DSCI 6004 or permission of instructor. Advanced topics in machine learning with focus on optimization, probability theory, multi-model ensemble techniques, time series analysis, instrumental variable analysis, and reinforcement learning. 3 credit hours.

DSCI 6006: Data Science Leadership and Entrepreneurism
Prerequisites: DSCI 6003 and DSCI 6004 or permission of instructor. Core skills necessary for professional Data Scientists to succeed in an industry setting. Students learn the skills of data visualization in parallel with the soft skills of communicating with a non-technical audience, interviewing skills, and core Data Science leadership skills. Emphasis is placed on enabling students to listen to articulated business needs or problem cases and learn how to propose as well as execute Data Science solutions to effectively meet these needs. 3 credit hours.

DSCI 6007: Distributed and Scalable Date Engineering
Co-requisites: DSCI 6003. This course will introduce students to working with distributed systems for efficiently collecting and analyzing large quantities of varied data. This is a survey-style course covering common data platforms and analysis patterns including Postgres (SQL), Hadoop (MapReduce), Spark, Kafka (logs), Lambda Architecture (streaming), and Cassandra (NoSQL). 3 credit hours.

DSCI 6008: Special Topics in Data Science
This course focuses on select Data Science, Data Engineering, and ML application topics. This class is seminar based, bringing in distinguished academic and industry practitioners. Students work as a group on application area project. Each course iteration will select a particular topic of focus. Topics of focus may include subjects such as: Neural Networks, Probabilistic Graphical Modeling and Social Networks, Advanced Optimization techniques and Fraud and Anomaly detection. 3 credit hours.

DSCI 6009: Data Science Focus Elective
The focus elective is an independent study of a specific application area for Data Science. Some examples include: health, sciences, stock market, astronomy, etc. Students may work as a group on application area project. 3 credit hours.

DSCI 6010: Data Science Industry Internship
Prerequisites: DSCI 6005 and DSCI 6006 or permission of instructor.
This internship course has students join an industry organization. In session 2, students begin interviewing and arranging for internships with Galvanize industry partners that have Data Science or Data Engineering needs. 3 credit hours.

- Students are encouraged to begin integration work for the internship in Session 2 as soon as placement is achieved, and will focus on it during session 3.
- Students will also be placed with a faculty or industry mentor/advisor to facilitate and supervise the internship.
- At least 300 hours of work preceding and during the internship are needed.

DSCI 6051: Data Science Capstone Project
Prerequisites: DSCI 6005 and DSCI 6006 or permission of instructor.
The final capstone project comprises design and development of the strategic vision and tactical operation plan for a Data Science challenge in a specific focus area. Students will participate in the organization, formulation, implementation, and presentation of the work done in the focus area. 3 credit hours.

The purpose of this course is to provide the student with an opportunity to practice the Data Science skills developed in the program on a protracted real world project. Students will work with an industry partner or governmental sponsor, leveraging a data set provided by the sponsor. Each student will develop his or her project by constructing a problem statement, proposing a solution, developing an experimental process for achieving the solution, and identify success criteria for completion. Work will be approved and assessed by the supervising faculty member and the project sponsor.

Admission

General Requirements

Admission to the University of New Haven Graduate School requires that applicants hold a baccalaureate degree from a regionally-accredited U.S. institution or from a foreign institution that is recognized by its jurisdictional Ministry of Education for granting baccalaureate degrees. Admission decisions are based primarily on an applicant's undergraduate record. Applicants must have a bachelor's degree in engineering, computer science, information technology, mathematics, statistics, or science from an accredited institution. Applicants should have taken courses in statistics and databases or have proven experience in these areas. Applications will be strengthened by an overall undergraduate grade average of at least 3.0 (on a 4.0 scale). One goal of the program is to enroll a class with a diverse student body.

A prospective student who is currently completing undergraduate study should submit an official transcript complete to the date of application. In such cases, an admission decision may be made on the basis of a partial transcript, contingent upon completion of the baccalaureate degree. Registration is not permitted until a final, official transcript is submitted to the Graduate Enrollment Management Office.

Procedure

Applicants for admission to the Graduate School must submit the following materials:

1. A completed application form.

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 year for the fall and spring terms. Once a cohort is at capacity, applicants will be considered for the following cohort. Each cohort group of students will follow the planned sequence of courses through graduation. Should a student not be able to enter the Graduate School during the term for which admission is granted, acceptance will remain open for one calendar year. After one year, a new application for admission may be required. Students accepted into the program are subject to the specific program requirements and rules of the Graduate Catalog in effect for the term in which the student is enrolled in the first course in that degree program.

Admission of International Students

The University is authorized under federal law to enroll nonimmigrant alien students. This graduate program is open to qualified international students. Because the review of international applications takes considerable time, it is important that the application and supporting materials be received by the International Admissions Office prior to term deadlines.

Application Deadlines:

- For the Fall term, beginning in late August each year, the deadline is May 15th.
- For the Spring term, beginning in late January each year, the deadline is October 15th.
- It is highly recommended that applicants submit All of the needed documents at least one month before the deadlines.

Please note: International students are required to be enrolled full-time by the U.S. Immigration and Customs Enforcement laws.

U.S. Immigration regulations require that a person holding student status make satisfactory progress toward a degree. This requires full-time study, which is generally interpreted to mean completing at least two courses (6 credits) each term.

To apply for admission to the Graduate School and to be ready to begin study, prospective international students must complete the steps outlined in the following section.

International Application Process

Applicants must submit the following materials:

1. A completed application form and the appropriate application fee.
2. Three letters of recommendation
3. Official transcripts of all undergraduate and graduate work completed. Applicants may be asked to provide substantiation of courses taken, grades received, and/or the academic reputation of the undergraduate school within the educational system of the country in which the school is located. A certified English translation must accompany non-English transcripts.

4. Proof of English proficiency. This must consist of one of the following:

    a. The Test of English as a Foreign Language (TOEFL) examination with a minimum score of 80 on the Internet-based test (IBT). The official score report must be sent directly from the testing service/site to the Graduate Admissions Office.

    b. The International English Language Testing System (IELTS) with a minimum score of 6.5 is also acceptable. IELTS is jointly managed by the British Council, IDP:IELTS Australia, and the University of Cambridge ESOL Examinations.

    c. The Pearson Test of English (PTE) with a minimum score of 53.

    d. Proof that undergraduate academic instruction and courses were completed using the English language.

5. Complete and submit the Financial Statement for International Students Form (FSIS) **accompanied by an original bank statement from your sponsor showing adequate funds.** The bank statement must be in English, signed by a bank official and dated within six months of the intended term of admission at UNH. To download the FSIS form, click here.

6. Submit a **clear** copy of your passport information page with your complete name, date of birth, country of birth and country of citizenship.

7. Applicants who are currently residing in the U.S. must submit **clear** copies of their U.S. visa stamp, I-94 card, I-20 (if any), I-797 (if any) and all other immigration documents.

8. Medical forms. Entering students must comply with health requirements by submitting the following forms required by the UNH Health Services Office:

    a. Measles/Rubella Immunization Form (required of all students)

    b. Health Examination Report (required of full-time students)

Visa documents (Form I-20 or Form DS-2019) are issued only after a student has submitted all required materials, has been accepted in a program of study, has provided acceptable proof of English proficiency and financial status, and has paid the $500 commitment deposit fee.

English Language Requirement for Graduate Applicants

Applicants whose native language is not English will be required to submit a valid TOEFL, IELTS, or Pearson's test score. Please see above for required test score results.

Note: No supplemental instruction to improve English language skills will be provided.

Admission Categories

Admitted applicants and students in the Graduate School are assigned to one of two categories: fully accepted and provisionally accepted. An earned bachelor's degree is required for admission to all categories.

Fully Accepted

Students accepted without special stipulations for entrance into the degree program are classified as fully accepted students.

Provisionally Accepted

Applicants may be accepted provisionally in the following situations: undergraduate grade point average falls below the standard set for full acceptance; acceptance requires additional test or document submission to support entrance into the program selected; or their undergraduate background indicates a need for additional course work or a short period of academic supervision and review. Students accepted provisionally should seek advice from

the appropriate coordinator or advisor during the provisional period. Students must complete the stipulated requirements of provisional acceptance at the beginning of the program of study. Upon completion of these requirements, each student's record is evaluated for admission as a fully matriculated candidate for the degree.

Academic Policies

Academic Integrity

The University of New Haven is an academic community based on the principles of honesty, trust, fairness, respect, and responsibility. Academic integrity is a core University value which ensures respect for the academic reputation of the University, its students, faculty and staff, and the degrees it confers.

The University expects that all students will learn in an environment where they work independently in the pursuit of knowledge, conduct themselves in an honest and ethical manner and respect the intellectual work of others. Each member of the University community has a responsibility to be familiar with the definitions contained in, and adhere to, the Academic Integrity Policy.

Violations of the Academic Integrity Policy include, but are not limited to, the following examples: cheating, collaboration/collusion, plagiarism, fabrication, and facilitating academic dishonesty. This Policy provides details concerning proscribed behavior as well as the procedures and sanctions that are triggered in the event of infractions.

Academic Advising

The UNH faculty located in San Francisco, CA all serve as academic advisors to the MS in Data Science students, across all cohorts. Each faculty member is in charge of the students' academic performance. As part of this mentorship arrangement, each faculty meets with each of the students individually, at least once per minimester. Additional advising sessions can be scheduled throughout the term initiated by faculty or by the student. . Faculty are available after classes for lab work and additional tutoring as needed in group or individual sessions. Additionally, the Chairman of the Department of Electrical & Computer Engineering and Computer Science at the main campus in West Haven, CT will be available for advising.

Capstone and Internship Advisement: As part of the MS Data Science curriculum, students work on a data science-oriented capstone project and internship with industry partners. The UNH faculty in San Francisco oversee the engagement process between industry sponsors and students, in addition to serving as their advisers for the duration of the capstone project

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 housed in the University Registrar's Office. Records include the application for admission and supporting documents such as test scores, transcripts of undergraduate and other prior study, letters of recommendation, course schedules, petitions filed by the student, and any other documents or correspondence pertaining to the student's academic work. The Registrar is responsible for controlling access to and disclosure of students' educational records. Students desiring to inspect or review their records should address a written, dated request to the Registrar. Information regarding confidentiality, privacy, and right of access to student records can be obtained from the Registrar.

Academic Calendar

University of New Haven Graduate Academic Calendar 2016-2017

Attendance

It is the responsibility of the student to attend all classes and to take examinations as scheduled. Faculty have the right to require a standard of attendance, even if it conflicts with professional and job-related responsibilities of students. Students whose jobs require that they be absent from class must realize that it is their responsibility to determine whether such absence is permitted by the instructor, and to meet the requirements for making up missed classes if the instructor allows such time to be made up.

In the case of religious observance, students seeking an accommodation should consult with their instructor. The university's policy regarding observance of religious holidays can be found in the student handbook.

Make-Up Policy

Make-up examinations are a privilege extended to students at the discretion of the instructor, who may grant permission for make-up examinations to those students who miss an exam as a result of a medical problem, personal emergency, or previously announced absence. On the other hand, instructors may choose to adopt a "no make-up" policy. Students should refer to the instructor's make-up policy in the course syllabus and if no mention is made

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	

Student Access to Final Grades

Final grades in each subject are available online soon after the close of each term, provided that financial obligations have been met and no other holds are in place.

Incomplete Course Work

Incomplete (INC)

A grade of Incomplete (INC) is given only in special circumstances and indicates that the student has been given permission by the instructor to complete required course work (with the same instructor) after the end of the term. In the absence of the instructor a student should contact the Department Chair.

An Incomplete shall not be automatic but shall be based upon an evaluation of the student's work completed up to that point and an assessment of the student's ability to complete remaining course requirements.

To remove the INC grade, the student must complete all required course work in timely fashion as stipulated by the instructor but no later than the end of the following term. Fall and intersession course incompletes must be completed no later than the last day of the spring term. Spring and summer course incompletes must be completed no later than the last day of the fall term.

If the course work is not submitted within the allotted time, the INC grade will be changed to an F shortly after the deadline by the Office of the University Registrar. Students will be notified via campus email at least two weeks prior to the change of grade process.

Incomplete Plus (INC+)

The incomplete change policy (INC) does not include grades of INC+ assigned to Internships, Practicums, Thesis, or Research Projects. These grades will be left incomplete plus grades (INC+) for up to one year unless an extension is filed beyond that time period.

Internships are limited to a maximum extension of one year. The internship grade will be changed to an F after the deadline.

Quality Point Ratio

The academic standing of each student is determined on the basis of the quality point ratio (QPR) earned each term. Each letter grade is assigned a quality point value, as described in the section "Course Grading System."

To obtain the QPR, multiply the quality point value of each grade by the number of credits assigned to each course; then divide the sum of the quality points earned by the number of credits attempted (in courses for which a grade of A+ through C- or F is awarded). A cumulative QPR is obtained by calculating the QPR for all courses taken at the University of New Haven.

Academic Standing, Probation and Dismissal

Good academic standing is defined as a cumulative GPA of 3.00 or above. A student whose cumulative GPA is below 3.00 after completion of at least 9 credits shall be placed on probation for the following semester. The student shall meet with the program coordinator prior to the start of that semester to develop a remediation plan. The final remediation plan shall be communicated to the Registrar and Program Chair. A remediation plan may include only one repeated course throughout the program of study.

A student who fails to achieve a GPA of 3.00 for a second semester shall be dismissed from the program. A student who has been dismissed may submit an appeal to the Academic Dean of their college for readmission. The appeal should include any recommendations that would support continuance as a student. If the Program Coordinator supports the appeal, his or her recommendation will be forwarded to the Dean of the College for final adjudication. A student who is readmitted to the Graduate School shall meet with their program coordinator to develop a final remediation plan. Any failure to maintain a GPA of 3.00 following readmission shall result in permanent dismissal from the program.

Repetition of Work

A student may repeat a course. The grade received in the subsequent attempt supersedes the original grade in the computation of the QPR if the new grade is higher. Both grades remain on the transcript. The course may be used only once for credit toward the requirements for the degree program.

Awarding of Degrees

The University awards degrees three times a year, in January, May and August. Commencement ceremonies are held in January and in May. A cumulative quality point ratio of 3.00 and completion of all program and University requirements are required for graduation and the conferring of master's degrees.

Application for Graduation

Students must file a graduation petition in order to have their names placed on the list of potential graduates. Matriculated students are required to submit an application for graduation according to the schedule deadline listed below.

Graduation	Petition Deadline
January Commencement	June 15
May Commencement	November 15
August – Awarding of Degrees	April 15

The application for graduation is online. Students can log into their account using the University's portal.

A candidate who does not complete the requirements for graduation before the deadline, after having filed the application to graduate, must apply again at a later date. All financial obligations to the University must be met prior to graduation.

Time Limit for Completion of Degree

A student must complete the requirements for the master's degree within five years of the date of completion of the first course following formal application to the degree program. Any extension of the time limit for completion of the degree can be granted only after approval by the appropriate program coordinator and the Dean of the Tagliatela College of Engineering.

Students who reach the five-year limit with fewer than 24 graduate credits completed at UNH must apply for readmission to their program, rather than for an extension. Students readmitted to a graduate program begin the five-year time limit again and are subject to the program curriculum and the rules of the Graduate Catalog in effect at the date/time of readmission.

Residency Requirements for Master's Degrees

Master's degree programs have a 30-credit residency requirement, with the exception of the M.B.A./M.S.I.E. and M.B.A./M.P.A. dual degree programs, which have a 60-credit residency requirement. Credits toward the residency requirement may be earned at the Main Campus, at the off-campus locations, or through UNH distance learning courses. Credits applied toward the requirement for one graduate degree may not be counted toward the residency requirement for another degree – an additional 30-credit residency requirement applies for those students who plan to complete a second master's degree program. The University policies for transfer of credit and waiver of courses apply in the same manner to candidates for a second master's degree as to those enrolling in their first master's program.

The Master of Science in Data Science program has a 30-credit minimum residency requirement.

Transfer Credit

The maximum number of credits a student may transfer is determined by the number of credits required by the program minus the 30-credit residency requirement. In all cases, an official transcript must be received directly from the institution where the course was taken and placed on file at UNH before transfer credit is awarded. Transfer credits are not included in courses used to establish a student's GPR or residency requirement at the University of New Haven.

If transfer credit is approved, then students are required to take additional elective course – to meet the minimum 30-credit residency requirement for the awarding of the master's degree.

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 approved in the past. For matriculated students, the department chair's approval is required in order to assure that the transfer contributes properly to the student's degree progress. Courses in disciplines for which UNH has no equivalent may be approved for transfer as elective credits in the student's program.

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 department housing the student's major and the related course at UNH. The Course Transfer Authorization form must be obtained online, approved by the department, and returned to the Registrar's office before the course begins.

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 due to the nature of the program. Please see the University's main Graduate catalog for full policy.

Articulation and Transfer Agreements

The University is not currently entered into an articulation or transfer agreement with any other college or university that applies to the MS DS program.

Notice Concerning Transferability of Credits and Credentials Earned at our Institution

The transferability of credits you earn at the University of New Haven is at the complete discretion of an institution to which you may seek to transfer. Acceptance of the Master of Science degree you earn in Data Science is also at the complete discretion of the institution to which you may seek to transfer. If the credits and/or Master's degree that you earn at this institution are not accepted at the institution to which you seek to transfer, you may be required to repeat some or all of your coursework at that institution. For this reason you should make certain that your attendance at this institution will meet your educational goals. This may include contacting an institution to which you may seek to transfer after attending the University of New Haven to determine if your credits and/or Master's degree will transfer.

Earning Credit

Consistent with federal regulations, the University of New Haven defines a "credit hour" as one hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately fifteen weeks for one semester, or the equivalent amount of work over a different amount of time such as an accelerated term. This definition generally applies also to an equivalent amount of work for other academic activities as established by the University including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.

Prerequisites

Students are expected to meet the prerequisite requirements for each course taken. Exceptions must be approved by the course instructor and the student's advisor or program coordinator. Credit may be denied to a student who takes a course without having taken the prerequisites.

Research Projects and Internships

All academic programs leading to a master's degree require the completion of a capstone work — a thesis, a substantial research or other project, or a comprehensive examination. Students must have the written approval of the advisor, department chair, and program coordinator prior to enrolling for the capstone program research or project. Approval forms are available from the University website.

Additionally, some programs require an internship or practicum under the supervision of a faculty advisor.–Written approval for these is also required, using forms available from the website. An–internship/practicum must be approved by the student's advisor and/or program coordinator as well as the coordinator or chair of the department offering the course.

Students preparing a report for research, special project, internship, or independent study may be asked to follow the guidelines presented in the UNH Dissertation and Thesis Manual (2nd edition, 1998), copies of which are available on the University website.

Course Withdrawal

During the first two thirds of a class, any student may withdraw and receive a final grade of W on their academic transcript by:

- Considering the academic consequences: consulting with an academic advisor or program coordinator is recommended.
- Considering the financial, billing, and US immigration implications: consulting with the Financial Aid Office, Bursar's Office and, if applicable, the International Office is recommended.
- Filling out the "Course Withdrawal Form" which includes documenting the student's last date of attendance for financial aid and billing purposes.
- Having the form signed as required.
- Submitting the form to the Office of the University Registrar.

Withdrawal policy

Graduate students should consult with the Program Coordinator before making the decision to withdraw. Once the decision in consultation with the Program Coordinator is made, the student should complete the official University Withdrawal form and submit it to the Office of the University Registrar. Students who are withdrawing are advised that:

- They are subject to prorated tuition and fee charges based on the last date of attendance in classes and according to the established withdrawal policy of the Bursar's Office.
- If they withdraw from the University and have their tuition prorated according to the established withdrawal policy they will receive a grade of "W" for each registered course.
- They must withdraw from the University prior to the Final Examination period
- Readmission at a later date is not automatic. An application for readmission must be made to the Undergraduate Admissions Office or to the Graduate Admissions Office depending on student level.
- Students readmitted to the University after a withdrawal are held to the academic requirements in effect in the catalog at the time of readmission. Courses that were taken at the University longer than five years prior to the readmission date may not

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's 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 form must apply through the Registrar's Office for an extension of the leave of absence, not to exceed the maximum period as outlined above.
- Taking a leave of absence may affect a student's financial aid. 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 Graduate Admissions Office. Upon successful readmission, the student may register for classes for the first term of their return through the Registrar's Office.
- For leaves of absence submitted during the first week of the term, the student's transcript will contain no record of courses attempted or grades received during that term.

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 complete statement of the Committee's Policies and Procedures, as well as the form required 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 it 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 understand the student's complaint and to decide how to resolve the complaint effectively.

Interacting with the Grievance Committee

In those instances where the instructor's superiors cannot resolve the complaint, the 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 committee's actions are kept confidential. The conclusions of the committee are binding and are reported to the Provost for implementation.

Grievances against Administrative Departments
The University of New Haven has established grievance procedures for students who have a concern or complaint regarding administrative issues. Individual offices and non-academic programs have developed grievance procedures for their respective office or program. Please refer to the individual department grievance procedures.

In the event that students are not satisfied with the outcome of a fully exhausted institutional grievance procedure the following organizations may be contacted for assistance:

New England Associations of Schools and Colleges, Commission on Institutions of Higher Education
3 Burlington Woods Drive, Suite 100
Burlington, MA 01803-4514
781.425.7700
http://cihe.neasc.org/standards_policies/commission_policies

Connecticut Office of Higher Education
61 Woodland Street
Hartford, CT 06105-2326
800.842.0229
www.ctohe.org/studentcomplaints.shtml

UNH Programs administered outside of Connecticut may also contact:
www.sheeo.org/stateauth/complaint%20Process%20links.pdf

Mailing Address:

Bureau for Private Postsecondary Education
P.O. Box 980818
West Sacramento, CA 95798-0818Physical Address:

Bureau for Private Postsecondary Education
2535 Capitol Oaks Drive, Suite 400
Sacramento, CA 95833Phone: (916) 431-6959

Toll Free: (888) 370-7589
Main Fax: (916) 263-1897
Licensing Fax: (916) 263-1894
Enforcement/STRF/Closed Schools Fax: (916) 263-1896
Website: www.bppe.ca.gov

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:

1. The right to inspect and review the student's education records within 45 days of the day the University receives a request for access. Students should submit to the Registrar, dean, head of academic department, or other appropriate official written requests that identify the record(s) they wish to inspect. The University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading. Students may ask the University to amend a record that they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding hearing procedures will be provided to the student when he or she is notified of the right to a hearing.

3. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University of New Haven to comply with the requirements of FERPA. The name and address of the office that administers FERPA are as follows: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue S.W., Washington, DC 20202-4605. Independent of the FERPA requirement, University policy relating to privacy of student academic and disciplinary records is as follows: Faculty and/or staff disclosure to others (including parents or guardians) of student academic information or disciplinary action requires a release from the affected student. Such a release should be obtained using a standard UNH form, which will be filed with the student's academic record (Registrar) or/and with the office of the Dean of Students.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University of New Haven to comply with the requirements of FERPA. The name and address of the office that administers FERPA are as follows: Family Policy Compliance Office, U.S. Department of Education, 600 Independence Avenue S.W., Washington, D.C. 20202-4605.

Notification of Social Security Number Collection and Use

Public Act No. 08-167 is specifically designed to protect the confidentiality of Social Security Numbers (SSNs) and requires other personal information to be safeguarded against misuse. In compliance with this Connecticut state law, the University of New Haven issues this notification regarding the purpose for the collection and use of Social Security Numbers.

The University of New Haven collects SSNs to perform specific duties and tasks necessary to the University. The University is required to report to the Internal Revenue Service the name, address, and SSN of any person from whom tuition and related payments are received.

Collection, access, and use of Social Security Numbers are limited to the following departments, which will carefully safeguard the information: Admissions, Registrar, Financial Aid, Business Office, and Payroll. Like other private data, SSNs will be stored in a secure manner, and will not be stored on portable storage devices, and will be shredded before discarding.

SSNs will not be used as identification numbers on student ID cards or elsewhere and will not be required to access an unsecure internet or website. All Social Security Numbers are protected by federal regulations and are not released to unauthorized parties or disclosed unlawfully.

Diversity Policy

The University of New Haven is committed to achieving a diverse and pluralistic community that reflects the multiracial and culturally diverse society in contemporary America. The Diversity Committee (a standing committee of the University) has been established to guide the University in implementing the Diversity Policy. The University will work toward attracting and retaining a diverse faculty, staff, and student body for the purpose of creating a pluralistic scholarly community. The Committee will assist the administration in the development and implementation of programs and policies that support an enriched educational experience for a diverse University community. The University of New Haven does not discriminate in admissions, educational programs, or employment against any individual on account of that individual’s gender, gender identity, race, color, religion, age, disability, sexual orientation, or national or ethnic origin.

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 prior to the start of any class, semester, trimester, or session. Please refer to the Bursar's 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 enhancements and other administrative services such as providing *academic transcripts. The general fee is charged for each semester in which a student enrolls.*			$500		
General Student Fee – Summer			$250		
Commitment Deposit				$300	
California Student Tuition Recovery Fund*				$0	
Credit and Debit Card Payment Fee		2.7%			
Late Payment Fee – monthly		1.00%			
Student Health Insurance (mandatory for international students)					$1315
Student Health Insurance (optional for domestic students)					$1315

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 credited towards the student's first semester tuition charges. The deposit is non-refundable and will be forfeited should you not enroll in classes in the term for which you paid the deposit. Tuition and fees will be available on students' accounts upon registration. Payment in full is due on the subsequent 13th day of the month after registration occurs. If the payment is not received by the designated due date, there will be a late fee each month equal to 1% of the unpaid balance. In addition a financial hold placed on the student's record. This hold will restrict students from scheduling/registering for future classes, requesting transcripts, and receiving diplomas.

Student Tuition Recovery Fund Assessment Fee

The Student Tuition Recovery Fund (STRF) was established by the state of California to reimburse students upon the untimely closing of their state-approved schools. California residents attending classes for the University of New Haven's Master of Science in Data Science program will be required to pay this state-imposed assessment fee for the fund.

California Student Recovery Fund Required Payment

The state-imposed assessment for the Student Tuition Recovery Fund (STRF) pertains to you if all of the following applies:

1. You are a student in an educational program, who is a California resident, or are enrolled in a residency program, and prepay your tuition either by cash, guaranteed student loans, or personal loans, and
2. Your total charges are not paid by any third-party payer such as an employer, government program or other payer unless you have a separate agreement to repay the third party.

You are not eligible for protection from the STRF and you are not required to pay the STRF assessment if either of the following applies:

1. You are not a California resident, or are not enrolled in a residency program, or
2. Your total charges are paid by a third party, such as an employer, government program or other payer, and you have no separate agreement to repay the third party.

NOTE: Effective January 1, 2015, the Student Tuition Recovery Fund (STRF) assessment rate will be zero ($0) per $1,000. Therefore, all institutions will not be required to collect STRF assessments.

Institutions will be required to complete and submit STRF Assessment Reporting Forms quarterly, even though they will no longer be collecting STRF assessments.

The STRF rate is subject to change based upon the balance in the STRF account. Statute requires the Bureau begin collecting if the balance falls below $20 million ($20,000,000.00) and caps the account at $25 million ($25,000,000.00).

For additional questions, please contact the Bureau for Private Postsecondary Education's STRF Unit at (888) 370-7589.

California Student Recovery Fund Eligibility

The State of California created the Student Tuition Recovery Fund (STRF) to relieve or mitigate economic losses suffered by students in educational programs who are California residents, or are enrolled in a residency program attending certain schools regulated by the Bureau for Private Postsecondary Education.

You may be eligible for STRF if you are a California resident or are enrolled in a residency program, prepaid tuition, paid STRF assessment, and suffered an economic loss as a result of any of the following:

1. The school closed before the course of instruction was completed.
2. The school's failure to pay refunds or charges on behalf of a student to a third party for license fees or any other purpose, or to provide equipment or materials for which a charge was collected within 180 days before the closure of the school.
3. The school's failure to pay or reimburse loan proceeds under a federally guaranteed student loan program as required by law or to pay or reimburse proceeds received by the school prior to closure in excess of tuition and other costs.
4. There was a material failure to comply with the Act or the Division within 30-days before the school closed or, if the material failure began earlier than 30-days prior to closure, the period determined by the Bureau.
5. An inability after diligent efforts to prosecute, prove, and collect on a judgment against the institution for a violation of the Act.

However, no claim can be paid to any student without a social security number or a taxpayer identification number.

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

This refund policy will also be followed in calculating cancellation of institutional financial aid.

Note: Please see Financial Aid Refund Policy below regarding the Return of Title IV Funds calculation.

Graduate Financial Aid

The University of New Haven participates in the federal financial aid program is committed to assisting our Graduate students in the financing of their education by offering a comprehensive financial aid program. The financial aid that is offered generally consists of Student loans.

Who is eligible to apply?

In order to be eligible to receive financial aid at the University of New Haven, students must have been officially accepted and matriculated for admission and be enrolled in a degree program. Students whose admission/matriculation status is "in process" or who are enrolled in a personal enrichment program are **not** eligible. Students must also be enrolled on at least a half-time basis. For the 2016 - 2017 academic year half-time is defined as enrollment in a minimum of 6 credits per term. Current students must be in good academic standing and those students who are prior aid recipients must be making satisfactory academic progress**.**

How to Apply

For Graduate students seeking aid for the 2016-2017 academic year for the Fall 2016, Spring 2017, or Summer 2017 terms**,** please submit only the following documentation***:***

- **2016-2017 Free Application for Federal Student Aid (FAFSA*)***- The FAFSA is required of all applicants for financial aid. To complete the 2016-17 FAFSA got to https://fafsa.ed.gov/
- Once you have completed your financial aid application and it is reviewed, additional forms and documents may be requested. If you will receive financial assistance or scholarships from an outside source (including employer tuition reimbursement) for the academic year, you must declare this information to the Financial Aid Office. Financial aid applications must be completed and loan applications certified prior to the last day of the term for which you are seeking aid.

Please note: You must list the University of New Haven as one of the schools entitled to receive this information **and** list our **Title IV school code # which is 001397**.

Financial Aid Refund Policy

Students who withdraw from courses prior to the 60% completion point of the term may be entitled to a full or partial refund of tuition charges. Refunds of charges and financial aid will be based on the institutional refund policy and on the Return of Title IV Funds calculation, as required by Section 484B of the Higher Education Act. Federal regulations require that any unearned Title IV aid be returned to the program(s) that provided the funds.

Return of Title IV Funds

A withdrawal requires that the institution calculate the amount of unearned aid a student has received. The University must:

- Determine the student's official withdrawal date as documented in the Registrar's Office. The withdrawal date is used to determine the percentage of the payment period completed and, therefore, the amount of aid a student earned. Students who have completed more than 60 percent of the term are not subject to the federal calculation.
- Determine the amount of aid earned by the student. The institution must calculate earned aid by multiplying the total aid disbursed or which could have been disbursed (excluding Federal Work Study) by the percent of the payment period the student completed.
- Determine if less aid has been disbursed than a student has earned, such that a post withdrawal disbursement must be made. The university will notify the student in writing within 30 days of the withdrawal date that a post withdrawal disbursement is available. The student must respond within 14 days of notification in order to receive the funds. The student may accept all or part of the post withdrawal disbursement. If more aid

was disbursed than earned then the university, the student, or both must return all unearned aid in a specific order:

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    1. Unsubsidized Direct Student Loan
    2. Subsidized Direct Student Loan
    3. Federal Perkins Loan
    4. Federal Direct Graduate PLUS Loan
    5. Federal Direct Parent PLUS loan
    6. Federal Pell Grants
    7. Federal SEOG (federal portion only)
    8. Federal TEACH Grant

Students are responsible for repaying all unearned aid a school is not required to return, as well as any balance created on their institutional bursar account by the application of the Title IV return of funds formula. The institution notifies the student in writing within 30 days of determining an overpayment. Students must repay as follows:

- Loans - repayment according to terms of the loan
- Grants - repayment is 50 percent of unearned grant.

Students who owe Title IV grant repayments have 45 days to:

- Repay in full.
- Make arrangements to repay the institution.
- Make arrangements to repay the U.S. Department of Education.

Students who fail to take positive action to repay their grants are reported to the Department of Education and the National Student Loan Data System (NSLDS), www.nslds.ed.gov, immediately after the 45-day period has elapsed. Additional information and examples of refund calculations are available in the Financial Aid Office.

Students who have obtained a loan to pay for the program will have the responsibility to repay the full amount of the loan plus interest, less the amount of any refund. The refund refers to any funds paid to the lender on your behalf.

If a student is eligible for a loan guaranteed by the federal or state government and the student defaults on the loan, both of the following may occur:

- The federal or state government or a loan guarantee agency may take action against the student, including applying any income tax refund to which the person is entitled to reduce the balance owed on the loan.
- A student may not be eligible for any other federal student financial aid at another institution or other government assistance until the loan is repaid.

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, called “pace”, and a certain cumulative GPA each year. At the end of the spring term, we will 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 financial aid award. “Successful completion” is defined as the 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.

A student’s academic progress is checked at the end of the spring term (July/August). The 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, doctor’s note, etc.), and explain what has changed that will allow the student 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.

A financial aid appeals committee made up of various members of the University community, including academic and administrative personnel, will meet to review the appeal letters.

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 appeal and would be considered on “Financial Aid probation”. After completion of that 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 will need to make payment arrangements with the Bursar’s Office.

The maximum time frame a student has to complete the requirements for their master’s 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

Accessibility Resources Center

The Accessibility Resources Center provides comprehensive services and supports that serve to promote educational equity and ensure that students with disabilities, chronic health-related disorders or military service related conditions are able to participate in the opportunities available at the University of New Haven.

Once a student with a qualifying disability/disorder/condition who wishes to utilize reasonable accommodations and/or services has enrolled at the University of New Haven, the student must initiate a request by self-identifying to the Accessibility Resources Center office. Students should submit an Intake Form and appropriate documentation attesting to the presence of a disability as defined by Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 as amended by the Americans with Disabilities Act Amendment Act of 2008.

The diagnosis of a disabling condition does not automatically qualify an individual for reasonable accommodations. The degree to which a condition imposes a functional limitation on the individual's ability to perform a major life activity or the operation of a major life function is a significant determining factor in establishing the need for accommodations.

Referrals and inquiries concerning any matters relating to students with disabilities, accessible facilities, and/or reasonable accommodations should be directed to this office.

The Director or Assistant Director of Accessibility Resources Center can be reached by phone (203) 932-7332 or by email at CampusAccess@newhaven.edu.

The ADA/Section504 Compliance Officer can be reached by phone at (203) 932-7238.

Campus Card Office

All students, faculty, and staff are issued a UNH Campus Card. The card includes the following features: picture ID, 16 digit ISO number, proximity chip, and access to online and in-house UNH library services. Your card is issued at no charge; however, the lost card replacement cost is $10. Upon leaving the University the card must be returned.

Students can submit their initial photo online, provided it meets specific requirements. Cards are issued at the beginning of the Fall semester for those students. Other incoming graduate students, as well as faculty and staff, are issued throughout the year as needed.

Health Services – Immunization Requirements

All students entering the University must comply with state laws regarding required immunizations. Medical forms and information can be obtained online. Students accepted to the Graduate School must complete the Immunization Form and mail it to:

University of New Haven
Health Services Office
300 Boston Post Road,
West Haven, CT 06516

It is the policy of the University, in cases of noncompliance, to withhold registration at the beginning of each term.

Housing

Student housing is not provided and the University assumes no responsibility to find or assist the student in finding housing. Information of rental of apartments is available from local newspapers and appropriate websites. Typically housing in the nearby area can be obtained, in the range of $1800 - $3800/bedroom per month.

Information Services: How to Obtain Software

Each student is entitled to an educational-license copy of Microsoft Office, which may be obtained in either the Campus Card Office. Additional software titles and anti-virus software are also available, at $15 per title, payable through the Bursar's Office. The Adobe Creative and Web Standard bundles are also available for a significantly higher fee.

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 to be sent to their place of residence or work by express mail for research and study purposes. These resources are discoverable through the library's online catalog. Library staff will also scan or photocopy chapters from physical books or government documents which the Library has in its collection or scan copies of journal articles. These can be sent to students or faculty as requested as a PDF through email, printed out then faxed, or printed out and mailed. In addition, the Marvin K. Peterson Library is a partial U.S. Government Documents Depository Library with the following holdings: 140,752 paper pieces and 189,197 microfiche pieces which are available to our students and faculty. The vast majority of U.S. Government Documents are now published electronically and available through the Library's online catalog as a PDF or with a link to its web address.

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 librarians partner with faculty through the "Embedded Librarian Program." The 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 where the skills can be applied immediately using the course Blackboard site. The duration can be for the entire semester or for a short period of time in conjunction with a specific assignment.
The process starts with an initial phone call or email to a librarian prior to the start of the course. This is essential in order for the librarian to get a complete understanding of the research requirement to be completed. This enables the librarian to determine the information literacy concepts that apply and to select the most appropriate information resources. Then librarians can:

- Embed customized research guides (called LibGuides) into the Blackboard site for the course. Each guide is developed for a specific class' research needs.
- Develop Tegrity videos or PowerPoint tutorials explaining research concepts and resources.
- Monitor a Discussion Board in the class Blackboard site to enable students to ask the librarian specific questions about research relating to the class.

The Library provides access to a 24/7 Text Messaging Ask a Librarian Service, which has professional librarians available to assist in answering reference questions or formulating search strategies to use when searching in our various commercial databases or online collections. In addition, students and faculty can email UNH librarians questions or call in questions using the toll free UNH telephone number at 1-800-DIAL-UNH. These services are advertised on our Ask a Librarian web page.

The professional librarians have prepared many library guides on a broad range of topics and course specific materials to assist students in learning effective research techniques. These are all available online at http://libguides.newhaven.edu/welcome . These guides provide students with information on resources available to conduct research in a particular subject area, how to prepare a bibliography in a particular format, how to use mobile device resources, or how to find case law. Most of them include short videos on various topics germane to conducting an effective search to locate research materials to prepare papers or study materials.

The UNH Library subscribes to a number to full-text databases, as well as bibliographic databases, to support the research needs and requirements of our faculty and students. The UNH Library's website provides a subject database list to assist students in locating relevant databases to search. An annotated database list and an alphabetical list of databases are also available to assist users in identifying the best databases to utilize in conducting their research. Strong online collections of e-Books, e-Journals, and e-Documents are available to UNH students and faculty 24/7. Their UNH Network e-mail account serves as their credential to access these online collections. Online services provide a significant extension for access to materials supporting the program.

Students and faculty have access to 40,749 unique full-text e-Journal titles in a wide range of subject areas. Specific e-Journal titles can be searched at http://ee4px6je7d.search.serialssolutions.com/. Faculty and students who wish to locate journals available in a particular subject area can do so by searching categories such as Business & Economics, Earth & Environmental Sciences, Engineering & Applied Sciences, Physical Sciences & Mathematics, or Social Sciences to name a few.

UNH students and faculty have online access to 25,707 e-Books either through e-Book collections or individual titles listed on this web page at http://www.newhaven.edu/library/141948/. Links to the full text e-Books are generally included in the library's online catalog. E-Documents can be found by searching the library's online catalog at http://library.newhaven.edu/cgi-bin/Pwebrecon.cgi?DB=local&PAGE=First Books, journal articles, government documents and other research materials not available at the UNH library will be obtained either through our interlibrary loan service, a commercial document delivery service, or directly through the publisher. The Library uses the OCLC database to access and obtain interlibrary loan materials from other libraries for members of the UNH community. Direct purchase through publishers and document delivery services are also utilized to expedite service to UNH students and faculty whenever necessary for research purposes.

Transcript Requests

Written requests from the student are required for transcripts to be issued. Each request must include the student name (and previous name(s), if applicable), student identification number, dates of attendance, and signature of the student plus the full street address, city, state, and zip code along with the name of the institution or third party to which the transcript will be sent. There is no fee for a transcript, but the student's financial account in the Bursar's Office must be in good standing before a transcript will be issued. Signed requests may either mailed to the University of New Haven, Registrar's Office, 300 Boston Post Road, West Haven, CT 06516 or faxed to 203-931-6096.

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

Certification of veterans' educational benefits is a service provided by the Registrar's Office, 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's Office closely monitor each student's status and academic program.

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/

The certification official's office is in the University Registrar's Office on the main campus in 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 jcasarella@newhaven.edu. The fax number is 203.932.6096.

Consumer Information for Graduate Students

The information provided below is for graduate students. Federal law requires a financial aid office to disclose the following information to families. If you should have any questions about the following information, you may contact a staff member in the Office of Financial Aid, 203-932-7315 or financialaid@newhaven.edu.

Information regarding the Family Educational Rights & Privacy Act (FERPA)

Financial Aid Information:

Information regarding University Costs

Information regarding Financial Aid Cost of Attendance

Description of Financial Aid programs (need based and non need based)

Terms and conditions under which students receive federal loans - Direct loans & Perkins loans

Information regarding need based & non need based state, local, school programs and private aid

Information regarding the Financial Aid application process

Information regarding how Financial Aid eligibility is determined

Information regarding how UNH distributes financial aid among students may be found at:

Terms and conditions of Employment that is part of the Financial Aid package

Information regarding the terms of, schedules for and the necessity of loan repayment

Before borrowing from a federal student loan program, students must complete Loan Entrance Counseling so the student is informed of their rights and responsibilities in being a student loan borrower. Loan Entrance Counseling for federal Direct student loans must be completed at the federal student loans website.

Loan counseling for the federal Perkins loan must be completed. Contact the Financial Aid Office for more information.

Loan Exit Counseling is a requirement for any student, who borrowed a federal Direct or Stafford student loan or federal Perkins loan that graduates, is no longer enrolled, or drops below a half-time status. Loan Exit Counseling for Direct loans or federal Stafford loans must be completed at the National Student Loan Data System website. The University of New Haven is the lender for the Perkins Loan. Repayment information will be forwarded to students from our loan servicer, Campus Partners. Students who have borrowed the Perkins Loan while attending the university will be contacted by Linda Heil in the Bursar's Office to complete their Loan Exit Counseling in person.

Criteria for Satisfactory Academic Progress and how to re-establish eligibility for financial aid

Statement of the requirements for return of Federal Student Aid funds when a student withdraws from the university

Information regarding the university Refund Policy

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 Facilities, Services, & Campus Policies Information:

Information regarding campus security statistics & campus security policies

UNH's missing persons procedures & the student's option to designate a contact person

Information regarding UNH's emergency response & evacuation procedures to reach students & staff

Information regarding UNH's fire safety report

Information regarding UNH's crime notifications

Clery Disclosure Information

UNH's policy regarding vaccinations required for full-time students

UNH's policy regarding vaccinations required for part-time students

Program Faculty

TAGLIATELA COLLEGE OF ENGINEERING
Electrical and Computer Engineering and Computer Science Faculty
MS Data Science program

Michael Bowles, Visiting Assistant Professor, B.S., M.S., Oklahoma State University; M.B.A., University of California, Los Angeles; Sc.D., Massachusetts Institute of Technology

Alessandro Gagliardi, Lecturer, B.A., University of California, Santa Cruz; M.S., Rutgers University.

Nir Kaldero, Program Director, Visiting Scholar, B.A., The Interdisciplinary Center Hertzliya, Israel

Brian J. Spiering, Visiting Assistant Professor, B.A., San Francisco State University; Ph.D., University of California, Santa Barbara

Donatella Taurasi, Adjunct Instructor, M.S., Ph.D. University of Bologna, Italy

Jared Thompson, Visiting Assistant Professor, B.S., San Francisco State University; Ph.D., Purdue University

Amy Yuan, Lecturer, B. Comm., University of Canterbury, New Zealand; B.Sc., University of Auckland, New Zealand; M.A., Harvard University.

Faculty at Main Campus:

UNH Electrical and Computer Engineering and Computer Science Faculty