



20
08

▣ Addendum
to the
General
Catalog

Enroll Today! • www.nu.edu
1.800.NAT-UNIV

National University® | The University of Values



Administrative Headquarters
11355 North Torrey Pines Road
La Jolla, CA 92037-1011
(858) 642-8000

Accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges (WASC)
985 Atlantic Avenue, Suite 100, Alameda, CA 94501, (510) 748-9001,
wascsr@wascsenior.org

Approved by the Commission on Teacher Credentialing (CTC)
1900 Capital Avenue, Sacramento, CA 94244

Accredited by the Commission on Collegiate Nursing Education (CCNE)
for the Bachelor of Science in Nursing Program
One Dupont Circle, NW, Suite 530, Washington, D.C.,
20036-1120, (202) 463-6930

Accredited by the International Assembly for Collegiate Business Education (IACBE) for the School of Business and Management
P.O. Box 25217, Overland Park, KS 66225, (913) 631-3009, iacbe@grapevine.net

Nationwide Toll Free Number
1 800 NAT-UNIV (628-8648)

or visit our website at www.nu.edu

Volume 71A, Published February 1, 2008



National University System Administration

Jerry C. Lee, Ed.D., *Chancellor of the National University System*
Virginia E. Beneke, M.B.A., *Vice Chancellor for Marketing and System Advancement*
Patricia E. Potter, M.B.A., *Vice Chancellor for Pre-College Programs*
Michael W. Prairie, J.D., *General Counsel*

National University System Affiliates

National University
Division of Pre-College Programs
National Polytechnic College of Science
National University International
Spectrum Pacific Learning Company LLC
WestMed College

College of Letters and Sciences

(New)

COURSE DESCRIPTION ENG 655

Composition Pedagogy

Composition pedagogy prepares students for the practical and theoretical challenges of teaching English composition and other writing courses. Topics include process theory, cognitive studies, visual analysis, discourse studies, and best practices.

School of Business and Management

(New)

MASTER OF ACCOUNTANCY

(742)

Lead Faculty: Forrest Young • (858) 642-8478 • fyoung@nu.edu

The Master of Accountancy (MAcc) program prepares students for a professional career in both public and private sector accounting. Its objective is to provide students with the advanced level of knowledge and skills needed in today's competitive environment.

This program is designed for students with little or no previous accounting background who wish to enter the accounting profession and to sit for one of the recognized professional examinations including Certified Public Accountant (CPA), Certified Management Accountant (CMA), and Certified in Financial Management (CFM). Applicants must have a minimum of a bachelor's degree in any discipline. However, students who have a bachelor's degree in Accounting must email the Lead Faculty for the program and obtain written approval to enroll in the program. All students are advised to contact a full-time accounting faculty member for a brief interview by phone or personal visit for the purpose of reviewing the student's career objectives and providing guidance regarding the courses to be selected.

Program Outcomes

Upon successful completion of this program, the student will be able to:

- Evaluate and apply the conceptual framework underlying the principles of accounting.
- Apply knowledge from the core areas of accounting.
- Measure, prepare and properly report accounting information for both internal and external users.
- Apply the concepts underlying taxation of individuals, business enterprises and other entities.
- Apply the concepts underlying the auditing of business enterprises.
- Apply ethical and legal concepts to accounting related issues.
- Utilize and integrate current information technologies, tools, methodologies, and systems, to plan, implement, execute, and analyze performance of the organization and its resources.
- Conduct independent research to synthesize and communicate accounting information both orally and in writing at the level required for accounting professionals.
- Conceptualize a complex issue, analyze it and build on the existing body of knowledge in the area of accounting.

Degree Requirements

(13 courses; 58.5 quarter units, project option)
(12 courses; 54 quarter units, exam option)

To receive a Master of Accountancy, students must complete at least 54 quarter units of graduate work. A total of 13.5 quarter units of graduate credit may be granted for equivalent graduate work completed at another institution, as it applies to this degree and provided the units were not used in earning another advanced degree. Students should refer to the section in graduate admission requirements for specific information regarding application and evaluation.

Core Requirements

(13 courses; 58.5 quarter units, project option)
(12 courses; 54 quarter units, exam option)

ACC 601M Foundations of Financial Accounting

ACC 610M Financial Accounting I
(Prerequisite: ACC 601M)

ACC 611M Financial Accounting II
(Prerequisite: ACC 610M)

ACC 612M Financial Accounting III
(Prerequisite: ACC 611M)

ACC 615M Advanced Financial Accounting
(Prerequisite: ACC 612M)

ACC 620M Taxation of Individuals
(Prerequisite: ACC 601M)

ACC 621M Taxation of Business and Other Entities
(Prerequisite: ACC 620M)

ACC 630M Cost Accounting
(Prerequisite: ACC 601M)

ACC 631M Advanced Managerial Accounting
(Prerequisite: ACC 630M)

ACC 640M Accounting for Governmental and Not-for-Profit Entities
(Prerequisite: ACC 601M)

ACC 650M Auditing Principles
(Prerequisite: ACC 612M)

ACC 651M Auditing Procedures
(Prerequisite: ACC 650M)

and

ACC 1EXM Comprehensive Exam (0 quarter units; no graduate credit)

(Prerequisite: completion of all core requirements)

or

ACC 696M Research Project

(Prerequisite: completion of all core requirements)

(New)

COURSE DESCRIPTIONS

ACC 601M

Foundations of Financial Accounting

Basic financial accounting theory, including the recording of business transactions and preparation of financial statements using "generally accepted accounting principals" (GAAP). Analysis and interpretation of financial data to assist users in their decision-making. Spreadsheets and accounting system software.

ACC 610M

Financial Accounting I

(Prerequisite: ACC 601M)

The first course in a comprehensive three course sequence covering a substantial portion of U.S. financial reporting principles known as GAAP including an in-depth review of the conceptual framework and principal financial statements. Emphasis on revenue and expense recognition, together with accounting for current assets.

ACC 611M

Financial Accounting II

(Prerequisite: ACC 610M)

The second course of a comprehensive three-course sequence covering a substantial portion of U.S. financial reporting principles known as GAAP, accounting for investments, tangible assets, natural resources and intangible assets, current and long-term liabilities, and shareholder equity.

ACC 612M

Financial Accounting III

(Prerequisite: ACC 611M)

The third course of a comprehensive three-course sequence covering a substantial portion of U.S. financial reporting principles known as GAAP, accounting for income taxes, compensation, pensions, leases, changes and errors, the statement of cash flows, and earnings per share.

ACC 615M

Advanced Financial Accounting

(Prerequisite: ACC 612M)

Examination of concepts of accounting for business combinations, with emphasis on the consolidation and financial reporting of parent/subsidiary relationships. Accounting for the formation, operation, and

liquidation of partnerships, foreign currency translation and hedging, segment reporting, and international financial reporting standards.

ACC 620M

Taxation of Individuals

(Prerequisite: ACC 601M)

Study of the statutory provisions and judicial doctrines.

Understanding and implementation of the theory and practice of federal income taxation of individuals. Incorporation of a series of tax strategy, case study (ethics) and research problems including tax form and return preparation.

ACC 621M

Taxation of Business and Other Entities

(Prerequisite: ACC 620M)

Study of the statutory provisions and judicial doctrines, understanding and implementation of the theory and practice of federal income taxation of corporations, partnerships, estates and trusts. Incorporation of a series of tax strategy, case study (ethics) and research problems including tax form and return preparation.

ACC 630M

Cost Accounting

(Prerequisite: ACC 601M)

The first course in a two course sequence. Tracking, recording, and analyzing costs associated with the products or activities of an organization. Cost terminology, cost measurement concepts, cost accumulation systems, accumulating and allocating overhead costs using various cost drivers.

ACC 631M

Advanced Managerial Accounting

(Prerequisite: ACC 630M)

The second course in a two course sequence. Measurement, analysis, and use of accounting information for management decision-making. Variable costing and inventory management, capital budgeting and operational budgeting decisions, and performance measurement and control of cost/profit/investment centers.

ACC 640M

Accounting for Governmental and Not for Profit Entities

(Prerequisite: ACC 601M)

Accounting principles used by governmental units and non-profit organizations. Concepts of fund accounting and the analysis and interpretation of the financial statements.

ACC 650M

Auditing Principles

(Prerequisite: ACC 612M)

The first course in a two course sequence. Audits of financial statements by Certified Public Accountants. Topics include: professional ethics, legal liability, planning of audit engagements, internal control, EDP and sampling.

ACC 651M

Auditing Procedures

(Prerequisite: ACC 650M)

The second in a two course sequence. Auditing procedures (compliance and substantive) for cash, receivables, inventory, payables, long-term debt, equity balances and related income statement accounts. Writing of auditor's reports, including special reports, and review/compilation reports in accordance with AICPA standards.

ACC 1EXM

Comprehensive Exam

(Prerequisite: Completion of all core requirements)

(This is an exam and does not award any graduate units)

Test of the areas covered in the accounting core requirements. The exam has a level of difficulty equal to that of professional accounting exams. The exam consists of both essay and multiple choice questions. Students must score a minimum of 75% overall with no less than 50% on any given subject in order to pass the exam. The exam may be taken for a maximum of four (4) times during the twelve (12) month period allowed for completion. The 12 month period starts the day after the completion date of the last course in the core requirements. If a student does not successfully complete the exam, they must take and complete successfully the research project class (ACC 696M).

ACC 696M

Research Project

(Prerequisite: Completion of all core requirements)

The student selects a current issue in any area of accounting with a full time or associate accounting faculty member as the research advisor and at least one additional faculty member on the project committee. The student submits a written paper and makes an oral presentation of the research. Course is eligible for an In Progress "IP" grade. Grading is H, S, or U only.

School of Education

As of July 1, 2007, National University's Education Specialist program was required to imbed the English Learner (EL) authorization into the program. This means that all courses required for the Education Specialist program, **including CLD 627**, must be completed **prior** to receiving a recommendation for your credential.

As a result of this change, National University may no longer recommend credential candidates for the Preliminary Education Specialist credential without the CLAD authorization as we have done in the past. It is now required that you complete CLD 627 **prior** to applying for your credential document.

(New)

COURSE DESCRIPTION

MAT 641

Education and Social Pluralism

Exploration of the principles of multiculturalism. Examination of ways to evaluate curricular content, adapt instruction, interact with parents and guardians, and create a classroom environment that accommodates the needs of learners in a culturally pluralistic society.

School of Engineering and Technology

(New)

■ BACHELOR OF SCIENCE WITH A MAJOR IN CONSTRUCTION

(620-448)

Lead Faculty: Thomas Gatton • (858) 642-8484 • tgatton@nu.edu

This program fills a pressing need to prepare individuals for employment and promotion in the construction industry. There has been continuous and substantial growth in this industry, causing a shortage of individuals with the proper training, due to a lack of academic programs and industry needs. Many individuals, who may be currently working in or seeking an education to prepare them for a career in the construction industry, do not need the advanced chemistry, math, statics and structural analysis background that is required by ABET and ACCE. There are a significant number of construction related contractors and suppliers that seek individuals familiar with construction, cost estimating, scheduling and control and possessing relevant business skills.

This program provides an opportunity for individuals to complete a degree program in construction that meets these needs. Further, this program allows the student the choice of courses, to fulfill graduation requirements, according to their own needs and interest in their specific career preparation or promotion at their current job. The purpose of the Construction Program is to provide students with a well rounded general education in written and verbal communication, mathematics, business, law, humanities, fine arts, and social, behavioral and natural sciences in preparation for a concentration in coursework that will prepare them for various careers in the construction industry. This degree program will prepare the student for careers with subcontractors such as assistant project manager, project manager, project coordinator, junior cost estimator, quality and safety controller, and CAD drafter. Specifically, graduates of the Construction Program, with experience, interest and/or knowledge about specific construction trades, will be capable of performing in a large number of management and administrative positions within respective subcontracting companies. These companies include trades such as carpentry, excavation, concrete work, plumbing, structural

steel, cabinetry, roofing, flooring insulation, drywall, electrical, HVAC, and landscaping.

Program Learning Outcomes

The program specific outcomes for the Bachelor of Science in Construction are based on industry standards and related degree programs. Upon completion of this program graduates will be able to:

- Effectively communicate through written, verbal and graphical communication.
- Recognize ethical issues in engineering and apply professional standards in decision-making.
- Utilize appropriate computer tools to solve engineering problems.
- Apply modern methods for surveying and metrics.
- Exhibit a fundamental understanding of building mechanical and electrical systems.
- Demonstrate cost estimating and scheduling techniques.
- Integrate and apply field inspection techniques and safety standards.
- Understand and apply the principles of project management and control.
- Apply construction accounting principles and analyze financial reports.
- Understand the legal aspects of construction contracting.
- Work effectively in a team environment.

Prerequisites for the Major

(6 courses; 27 quarter units)

| | |
|----------|---|
| PSY 100 | Introduction to Psychology* |
| COM 200 | Effective Communication* |
| ENG 334A | Technical Writing* (Prerequisites: ENG 100/101) |
| ECO 204 | Principles of Macroeconomics* |
| ACC 201 | Financial Accounting Fundamentals |
| MTH 215 | College Algebra and Trigonometry* (Prerequisite: Placement Evaluation) |

*May be used to satisfy a general education requirement

Requirements for the Major

(17 courses; 76.5 quarter units)

| | |
|---------|---|
| EGR 307 | Introduction to Software, Engineering, and Ethics |
| EGR 310 | Engineering Economics (Prerequisite: MTH 215) |
| EGR 316 | Legal Aspects of Engineering |
| EGR 319 | Introduction to Engineering Graphics and AutoCAD (Prerequisite: MTH 215) |
| DEN 408 | Computer Aided Engineering I: Simulation Modeling and Analysis (Prerequisite: EGR 319) |
| CEN 320 | Surveying, Metrics, and GIS (Prerequisite: EGR 319) |
| CEN 410 | Construction Materials and Methods (Prerequisite: MTH 215) |
| CEN 413 | Plans and Specifications (Prerequisite: EGR 319) |
| CEN 416 | Mechanical and Electrical Systems (Prerequisite: MTH 215) |
| CEN 419 | Estimating, Scheduling, and Control (Prerequisite: CEN 410) |
| CEN 420 | Estimating, Scheduling, and Control II (Prerequisite: CEN 419) |
| CEN 421 | Construction Accounting, Finance and Law |
| CEN 422 | Field Inspection and Safety (Prerequisite: CEN 410) |
| CEN 425 | Design & Construction Process Integration |
| EGR 440 | Project Management Fundamentals (Prerequisite: EGR 307) |

Construction Senior Project

| | |
|----------|---|
| EGR 486A | Engineering Senior Project I (Prerequisites: Completion of 10 BSC major courses and EGR 440) |
| EGR 486B | Engineering Senior Project II (Prerequisite: EGR 486A) |

(New)

Certificate Programs

● Certificate in Construction Contract Administration

(670-000-549)

Faculty Advisor: Thomas Gatton • (858) 642-8484 • tgatton@nu.edu

The Construction Contract Administration Certificate Program provides an opportunity for students to obtain the essential skills necessary for competency in the process of construction contract administration through the life-cycle of the construction project. The program is aligned with the requirements of the Construction Specifications Institute's (CSI) recommendations and manual of practice. This certificate program will prepare the student for taking the Construction Specifications Institute certification exam as a Certified Construction Contract Administrator (CCCA) Students will complete courses to develop competency in the areas of engineering graphics, plans, specifications, estimating, scheduling, control, materials and methods, the construction process cycle, construction documents, procurement, work execution, facilities management, project inception and closeout, delivery, design, inspections, quality, measurement, payment, claims and disputes. Upon completion, students will understand the principles of contractual relationships, document organization and construction contract administration procedures.

Prerequisites for the Certificate

(5 courses; 22.5 quarter units)

| | |
|---------|---|
| EGR 319 | Introduction to Engineering Graphics and AutoCAD (Prerequisite: MTH 215) |
| CEN 410 | Construction Materials and Methods (Prerequisite: MTH 215) |
| CEN 413 | Plans and Specifications (Prerequisite: EGR 319) |
| CEN 419 | Estimating, Scheduling and Control (Prerequisite: CEN 410) |
| CEN 425 | Design and Construction Process Integration |

Requirements for the Certificate

(4 courses; 18 quarter units)

| | |
|---------|--|
| CEN 450 | Construction Documents I (Prerequisites: CEN 413 and CEN 419) |
| CEN 453 | Construction Documents II (Prerequisite: CEN 450) |
| CEN 470 | Construction Contract Administration I (Prerequisite: CEN 453) |
| CEN 473 | Construction Contract Administration II (Prerequisite: CEN 470) |

Courses taken for this certificate program may be applied to other certificate programs, as well as a degree program, where applicable. Additionally, some of the prerequisite courses have credit/challenge by exams available to students who have acquired the content knowledge of the required prerequisite coursework in a non-academic format. Please contact the Lead Faculty for more information.

● Certificate in Construction Documents Technology

(670-000-550)

Faculty Advisor: Thomas Gatton • (858) 642-8484 • tgatton@nu.edu

The Construction Documents Technology certificate program provides an opportunity for students to obtain the essential skills for construction document management. This certificate is specially focused for individuals interesting in understanding construction documents and the process flow of construction documentation through the life-cycle of the construction project. This certificate program will prepare the student for taking the Construction Specifications Institute certification exam as a Construction Document Technologist. Students will complete courses to develop competency in the areas of engineering graphics, plans, specifications, materials

and methods, construction process cycle, construction documents, procurement and facilities management.

Prerequisites for the Certificate

(2 courses; 9 quarter units)

- EGR 319 Introduction to Engineering Graphics and AutoCAD
(Prerequisite: MTH 215)
- CEN 410 Construction Materials and Methods
(Prerequisite: MTH 215)

Requirements for the Certificate

(4 courses; 18 quarter units)

- CEN 413 Plans and Specifications
(Prerequisite: EGR 319)
- CEN 419 Estimating, Scheduling and Control
(Prerequisite: CEN 410)
- CEN 450 Construction Documents I
(Prerequisite: CEN 419)
- CEN 453 Construction Documents II
(Prerequisite: CEN 450)

Courses taken for this certificate program may be applied to other certificate programs, as well as a degree program, where applicable. Additionally, some of the prerequisite courses have credit/challenge by exams available to students who have acquired the content knowledge of the required prerequisite coursework in a non-academic format. Please contact the Lead Faculty for more information.

● Certificate in Construction Management

(670-000-551)

Faculty Advisor: Thomas Gatton • (858) 642-8484 • tgatton@nu.edu

The Construction Management certificate program provides an opportunity for students to obtain the essential skills for managing construction projects. This certificate is specially focused for individuals with significant field experience, but lacking construction management skills and academic preparation, and wish to become construction managers in various sub-contracting trades. Students will complete courses to develop competency in the areas of construction systems, project control, estimating and control, economics, management and accounting.

Prerequisites for the Certificate

(6 courses; 27 quarter units)

- ACC 201 Financial Accounting Fundamentals
- EGR 307 Introduction to Software, Engineering and Ethics
- EGR 310 Engineering Economics
(Prerequisite: MTH 215)
- EGR 319 Introduction to Engineering Graphics and AutoCAD
(Prerequisite: MTH 215)
- CEN 410 Construction Materials and Methods
(Prerequisite: MTH 215)
- CEN 413 Plans and Specifications
(Prerequisite: EGR 319)

Requirements for the Certificate

(4 courses; 18 quarter units)

- CEN 419 Estimating, Scheduling and Control
(Prerequisite: CEN 410)
- CEN 421 Construction Accounting, Finance and Law
- CEN 425 Design and Construction Process Integration
- EGR 440 Project Management Fundamentals
(Prerequisite: EGR 307)

Courses taken for this certificate program may be applied to other certificate programs, as well as a degree program, where applicable. Additionally, some of the prerequisite courses have credit/challenge by exams available to students who have acquired the content knowledge of the required prerequisite coursework in a non-academic format. Please contact the Lead Faculty for more information.

● Certificate in Construction Specifications

(670-000-552)

Faculty Advisor: Thomas Gatton • (858) 642-8484 • tgatton@nu.edu

The Construction Specifications Certificate Program provides an opportunity for students to obtain the essential skills necessary for competency in the process of construction documentation through the life-cycle of the construction project and prepare construction documents. The program is aligned with the requirements of the Construction Specifications Institute's (CSI) recommendations and manual of practice. This certificate program will prepare the student for taking the CSI certification exam as a Certified Construction Specifier (CCS). Students will complete courses to develop competency in the areas of engineering graphics, plans, specifications, estimating, scheduling, control, materials and methods, the construction process cycle, construction documents, procurement, facilities management, and project inception, delivery and design. Upon completion, students will understand the principles of contractual relationships, document organization and document preparation.

Prerequisites for the Certificate

(5 courses; 22.5 quarter units)

- EGR 319 Introduction to Engineering Graphics and AutoCAD
(Prerequisite: MTH 215)
- CEN 410 Construction Materials and Methods
(Prerequisite: MTH 215)
- CEN 413 Plans and Specifications
(Prerequisite: EGR 319)
- CEN 419 Estimating, Scheduling and Control
(Prerequisite: CEN 410)
- CEN 425 Design and Construction Process Integration

Requirements for the Certificate

(4 courses; 18 quarter units)

- CEN 450 Construction Documents I
(Prerequisite: CEN 413, CEN 419))
- CEN 453 Construction Documents II
(Prerequisite: CEN 450)
- CEN 460 Construction Specifications I
(Prerequisite: CEN 453)
- CEN 463 Construction Specifications II
(Prerequisite: CEN 460)

Courses taken for this certificate program may be applied to other certificate programs, as well as a degree program, where applicable. Additionally, some of the prerequisite courses have credit/challenge by exams available to students who have acquired the content knowledge of the required prerequisite coursework in a non-academic format. Please contact the Lead Faculty for more information.

● Certificate in Electrical Systems Cost Estimating

(670-000-553)

Faculty Advisor: Thomas Gatton • (858) 642-8484 • tgatton@nu.edu

The Electrical Systems Estimating certificate program provides an opportunity for students to obtain the essential skills for construction cost estimating with a specialization in electrical systems. This certificate is specially focused for individuals with significant field experience, but lacking cost estimating skills and academic preparation, wishing to perform construction cost estimating for electrical systems. Students will complete courses to develop competency in the areas of construction systems, project control, estimating, economics, management and accounting.

Prerequisites for the Certificate

(3 courses; 13.5 quarter units)

- EGR 313 Electrical Circuits and Systems
(Prerequisite: MTH 215)
- EGR 319 Introduction to Engineering Graphics and AutoCAD
(Prerequisite: MTH 215)

CEN 410 Construction Materials and Methods
(Prerequisite: MTH 215)

Requirements for the Certificate

(4 courses; 18 quarter units)

- CEN 413 Plans and Specifications
(Prerequisite: EGR 319)
- CEN 419 Estimating, Scheduling and Control
(Prerequisite: CEN 410)
- CEN 420 Estimating, Scheduling and Control II
(Prerequisite: CEN 419)
- CEN 427 Electrical Systems Estimating and Bidding
(Prerequisite: CEN 420)

Courses taken for this certificate program may be applied to other certificate programs, as well as a degree program, where applicable. Additionally, some of the prerequisite courses have credit/challenge by exams available to students who have acquired the content knowledge of the required prerequisite coursework in a non-academic format. Please contact the Lead Faculty for more information.

● Certificate in Mechanical Systems Cost Estimating

(670-000-554)

Faculty Advisor: Thomas Gatton • (858) 642-8484 • tgatton@nu.edu

The Mechanical Systems Cost Estimating certificate program provides an opportunity for students to obtain the essential skills for cost estimating with a specialization in mechanical systems. This certificate is specially focused for individuals with significant field experience, but lacking cost estimating skills and academic preparation, wishing to perform construction cost estimating for mechanical systems. Students will complete courses to develop competency in the areas of electrical and construction systems, plans and specifications, project control, scheduling, estimating, bidding, control, economics, management and accounting.

Prerequisites for the Certificate

(3 courses; 13.5 quarter units)

- EGR 319 Introduction to Engineering Graphics and AutoCAD
(Prerequisite: MTH 215)
- CEN 410 Construction Materials and Methods
(Prerequisite: MTH 215)
- CEN 413 Plans and Specifications
(Prerequisite: MTH 215)

Requirements for the Certificate

(4 courses; 18 quarter units)

- CEN 416 Mechanical and Electrical Systems
(Prerequisite: MTH 215)
- CEN 419 Estimating, Scheduling and Control
(Prerequisite: CEN 410)
- CEN 420 Estimating, Scheduling and Control II
(Prerequisite: CEN 419)
- CEN 429 Mechanical Systems Estimating and Bidding
(Prerequisite: CEN 420)

Courses taken for this certificate program may be applied to other certificate programs, as well as a degree program, where applicable. Additionally, some of the prerequisite courses have credit/challenge by exams available to students who have acquired the content knowledge of the required prerequisite coursework in a non-academic format. Please contact the Lead Faculty for more information.

● Certificate in Construction Safety and Inspection

(670-000-555)

Faculty Advisor: Thomas Gatton • (858) 642-8484 • tgatton@nu.edu

The Safety and Inspection certificate program provides an opportunity for students to obtain the essential skills for implementing and

managing construction safety and quality programs through inspection. This certificate is specially focused for individuals with significant field experience, desiring a knowledge of management skills to perform field implementation of safety and quality through competent inspections. Students will complete courses to develop competency in the areas of electrical and construction systems, plans and project scheduling, estimating and control, inspection procedures and techniques, and management principles.

Prerequisites for the Certificate

(5 courses; 22.5 quarter units)

- EGR 307 Introduction to Software, Engineering and Ethics
- EGR 313 Electrical Circuits and Systems
(Prerequisite: MTH 215)
- EGR 319 Introduction to Engineering Graphics and AutoCAD
(Prerequisite: MTH 215)
- CEN 410 Construction Materials and Methods
(Prerequisite: MTH 215)
- CEN 413 Plans and Specifications
(Prerequisite: EGR 319)

Requirements for the Certificate

(4 courses; 18 quarter units)

- CEN 416 Mechanical and Electrical Systems
(Prerequisite: MTH 215)
- CEN 419 Estimating, Scheduling and Control
(Prerequisite: CEN 410)
- CEN 422 Field Inspection and Safety
(Prerequisite: CEN 410)
- EGR 440 Project Management
(Prerequisite: (EGR 307)

Courses taken for this certificate program may be applied to other certificate programs, as well as a degree program, where applicable. Additionally, some of the prerequisite courses have credit/challenge by exams available to students who have acquired the content knowledge of the required prerequisite coursework in a non-academic format. Please contact the Lead Faculty for more information.

■ MASTER OF SCIENCE IN SYSTEMS ENGINEERING

(720-830)

(New)

Area of Specialization in Lean Six Sigma

(4 courses; 18 quarter units)

(898)

The specialization courses as listed below will be offered in conjunction with the Management Sciences Division of VSE Corporation (<http://www.vsecorp.com/services/management/index.html>) and Extended Learning at National University. Successful completion of all four courses (EEX1201X, EEX1202X, EEX1203X, and EEX1204X) is required as part of the Lean Six Sigma specialization in the MS Systems Engineering Program.

GREEN BELT PROGRAM COURSES

(2 courses; 9 quarter units)

- EEX1201X Fundamentals of Process Analysis and Optimization
- EEX1202X Operational Efficiency and Cost Effectiveness

BLACK BELT PROGRAM COURSES

(2 courses; 9 quarter units)

- EEX1203X Fundamentals of Leading and Managing Continuous Measurable Improvement
- EEX1204X Advanced Topics in Process Analysis

GREEN BELT AND BLACK BELT CERTIFICATION COURSE (Not a requirement for the degree or area of specialization)

EEX1205X Six Sigma Project Practicum

Thus, the combined Green Belt and Black Belt program courses are

equivalent to 160 hours of instruction. EEX1205X is required only to obtain the Black Belt and Green Belt certifications in conjunction with the Green Belt and Black Belt program courses.

(New)

COURSE DESCRIPTIONS

CEN 427

Electrical Systems Estimating and Bidding

(Prerequisite: CEN 420)

This course builds on the advanced concepts of construction cost estimating techniques covered in CEN 420 and presents cost estimating techniques applied specifically to electrical systems. Advanced topics concerning electrical contracting and estimating procedures, job costs electrical labor units, unit costs, electronic estimating, estimate indexing, submittal preparation and review, change orders and cost adjustments are presented.

CEN 429

Mechanical Systems Estimating and Bidding

(Prerequisite: CEN 420)

This course builds on the advanced concepts of construction cost estimating techniques covered in CEN 420 and presents cost estimating techniques applied specifically to mechanical systems. Advanced topics concerning mechanical contracting and estimating procedures, job costs electrical labor units, unit costs, mechanical systems estimating, estimate indexing, submittal preparation and review, change orders and cost adjustments are presented.

CEN 450

Construction Documents I

(Prerequisites: CEN 413 and 419)

An overview of the construction project documents and processes, the stages of a typical construction project and the participants and their relationships, within the context of the construction project life-cycle. Introduction to activities of the project conception phase, schematic programming and program development and benefits and limitations of construction project delivery types and substitution procedures. Preliminary project descriptions, outline specifications, schematic design, design development stages, allowances, alternates and unit pricing.

CEN 453

Construction Documents II

(Prerequisite: CEN 450)

Continuation of CEN 450. Construction formats such as OmniClass™, UniFormat™, MasterFormat™, SectionFormat™ and PageFormat™ to organize, store and retrieve information. General and procedural requirements, methods of specifying, specification language and practices, project manual, procurement, warranties and construction bonds. Pricing, project information, agreements, construction stage submittals, project closeout, and facility management.

CEN 460

Construction Specifications I

(Prerequisite: CEN 453)

In-depth coverage of construction contracts and limitations, owner-contractor agreements, general conditions, supplementary conditions for modifications, bidding document changes, document organization and requirements coordination. Advanced concepts of the benefits of MasterFormat™ and UniFormat™, Division 01 and other contract relationships and Division 01 and the relevance to project manual organization.

CEN 463

Construction Specifications II

(Prerequisite: CEN 460)

Continuation of construction specifications and processes, covered in CEN 460. Advanced topics in master guide specification section scoping and preparation, project manual production, product decision and procurement organization, specification methods, insurance and bonding terms and warranty purposes and limitations. Detailed topics in appropriate specifications methods, procurement contracts and the Uniform Commercial Code, procurement and construction contract differences, performance method usage, short-form specification, preliminary project description organizations and proper specification writing using PageFormat™ and SectionFormat™.

CEN 470

Construction Contract Administration I

(Prerequisite: CEN 453)

Continuation of construction documents knowledge gained in CEN 453. In-depth coverage of documents used for construction and project delivery, the roles and responsibilities of project participants, preconstruction submittals and administrative procedures, pricing and bidding considerations, proper meeting procedures, and submittal maintenance procedures. Advanced concepts in the schedule of values, site visits, inspections, nonconforming work, quality assurance and quality control.

CEN 473

Construction Contract Administration II

(Prerequisite: CEN 470)

Continuation of the concepts of construction contract administration and processes, covered in CEN 470. Advanced topics on contract interpretation and modification, change order procedures, execution of work, claim handling methods, dispute prevention and resolution, measurement and payment methods, schedule of values usage, payment processes and liens. Project closeout, substantial and final completion, pre and post occupancy activities, project feedback and facility management transition.

School of Health and Human Services

(New)

COURSE DESCRIPTIONS

IHC 610

Self as Coach

Provides students with an opportunity for self exploration and related self work leading to personal growth and development. Students will examine their core beliefs, personal style, roles, defensive strategies, projections, etc. This exploration will enhance their coaching presence in their role as a health coach.

IHC 635

Social and Emotional Intelligences in Health Coaching

Provides student with a clear understanding of and appreciation for emotional social intelligence. Students will craft an individual emotional competency development plan. They will leave the course with a depth of knowledge concerning emotional and social intelligence and the ways in which they can develop these competencies in themselves and in their coaching clients.

Enroll Today!

www.nu.edu

1.800.NAT-UNIV



The University of Values