The NC Aerospace Initiative connects a variety of enterprises in the aerospace sector that are working to promote the industry's growth. The NCAI is a coalition of aerospace interests that have come together to align these enterprises and to act as a clearinghouse for all things aerospace. This resource guide is a product of the NCAI initiative.



# **Universities & Colleges**

# Aviation and Aerospace Related Training Undergraduate and Graduate Degree Programs (Statewide)

# **Aviation and Aerospace Disciplines**

#### **Aeronautics**

# **Program Description**

Aeronautics curriculum is closely mapped to the needs and demands of the aviation/aerospace industry and to general education guidelines.

# Embry-Riddle Aeronautical University-Worldwide

# Guilford Technical Community College

260 N. Regional Road c/o GTCC Aviation Center Greensboro, NC 27409 336-665-9401 <u>Greensboro@erau.edu</u> http://worldwide.erau.edu/locations/greensboro

#### **Elizabeth City**

U.S. Coast Guard Station 1664 Weeksville Rd., Building 45 Elizabeth City, NC 27909 252-331-2225 ElizabethCity@erau.edu http://worldwide.erau.edu/locations/elizabeth-city Associate in Science (AS)
Bachelor of Science (BS)
Master of Science (MS) and
Doctor of Philosophy (PhD)

PhD: Embry-Riddle offers this program primarily online with the inclusion of three six-day residencies at designated campuses. This way, you can continue working while you get your degree.

Modes of Instruction: Classroom Online EagleVision Home Blended Program

#### Fort Bragg

Soldier Development Center, Building 2-1728, Room 320, 231 Armistead Street Fort Bragg, NC 28307 910-339-1567 FortBragg@erau.edu http://worldwide.erau.edu/locations/fort-bragg

# Seymour Johnson

1520 Goodson Street Seymour Johnson AFB, NC 27531 919-734-9211 SeymourJohnson@erau.edu http://worldwide.erau.edu/locations/seymourjohnson

#### **Aviation Business Administration**

# **Program Description**

The Bachelor of Science in Aviation Business Administration explores all facets of business administration and management, including: Economics, Aeronautical Science, Business Statistics & Accounting, Business Marketing & Management and International Business.

#### Embry-Riddle Aeronautical University-Worldwide

# **Elizabeth City**

U.S. Coast Guard Station 1664 Weeksville Rd., Building 45 Elizabeth City, NC 27909 252-331-2225

ElizabethCity@erau.edu

http://worldwide.erau.edu/locations/elizabeth-city

Associate in Science (AS) Bachelor of Science (BS)

Modes of Instruction:

Classroom Online

EagleVision Home EagleVision Classroom

#### **Aviation Maintenance**

#### **Program Description**

In addition to gaining critical skills needed to succeed in an aviation maintenance career, students will specialize in one of two maintenance functions: Management or Safety.

# **Embry-Riddle Aeronautical University-Worldwide**

#### **Guilford Technical Community College**

260 N. Regional Road c/o GTCC Aviation Center Greensboro, NC 27409 336-665-9401

<u>Greensboro@erau.edu</u>

http://worldwide.erau.edu/locations/greensboro

Associate in Science (AS) Bachelor of Science (BS)

If you hold an FAA Airframe & Powerplant Maintenance Certificate, you are awarded 24 credit hours toward the associate degree or 30 credit hours toward the bachelor's degree. Students may also earn maintenance credit as part of the overall curriculum.

**Elizabeth City** 

U.S. Coast Guard Station 1664 Weeksville Rd., Building 45 Elizabeth City, NC 27909 252-331-2225

ElizabethCity@erau.edu

http://worldwide.erau.edu/locations/elizabeth-city

Fort Bragg

Soldier Development Center, Building 2-1728, Room 320, 231 Armistead Street Fort Bragg, NC 28307 910-339-1567

FortBragg@erau.edu

http://worldwide.erau.edu/locations/fort-bragg

PhD: Embry-Riddle offers this program primarily online with the inclusion of three six-day residencies at designated campuses. This way, you can continue working while you get your degree.

Modes of Instruction: Classroom Online EagleVision Home Blended Program

#### **Aviation Science**

# **Program Description**

The aviation programs at Elizabeth City State University offer students a comprehensive education in their chosen aviation area of study. Moreover, the curriculum offers general education and liberal arts courses that are intended to help students to broaden their perspectives about themselves and their careers while, at the same time, giving them the knowledge and confidence to be successful in the competitive fields of aviation and aerospace.

**Elizabeth City State University** 

1704 Weeksville Road Elizabeth City, NC 2790

Contact:

Kuldeep Rawat

Associate Professor/Director of Aviation

Science

252-335-3846

ksrawat@mail.ecsu.edu

www.ecsu.edu/academics/mathsciencetech

nology/technology/aviation

Bachelor of Science in Aviation Science

Minors Available

Aviation Management

Computer Science

Electronics

**Avionics** 

Flight Education

**Public Administration** 

Space Science

Air Traffic Control (to be proposed)

# **Technical Management**

#### **Program Description**

Students in the Technical Management degree program learn to apply management skills to their technical specialty and have the opportunity to focus in one of the six areas of specialization: Engineering Sciences, Information Security, Logistics, Management of Information Systems, Occupational Safety & Health and Project Management.

Embry-Riddle Aeronautical University-Worldwide

**Guilford Technical Community College** 

260 N. Regional Road c/o GTCC Aviation Center Greensboro, NC 27409 336-665-9401

Greensboro@erau.edu

http://worldwide.erau.edu/locations/greensboro

Associate in Science (AS) Bachelor of Science (BS) Master of Science (MS) and Doctor of Philosophy (PhD)

PhD: Embry-Riddle offers this program primarily online with the inclusion of three six-day residencies at designated campuses. This way, you can continue working while you get your degree.

Elizabeth City

U.S. Coast Guard Station 1664 Weeksville Rd., Building 45 Elizabeth City, NC 27909 252-331-2225

ElizabethCity@erau.edu

http://worldwide.erau.edu/locations/elizabeth-city

Fort Bragg

Soldier Development Center, Building 2-1728, Room 320.

R00111 320,

231 Armistead Street

Fort Bragg, NC 28307

910-339-1567

FortBragg@erau.edu

http://worldwide.erau.edu/locations/fort-bragg

Seymour Johnson

1520 Goodson Street Seymour Johnson AFB, NC 27531 919-734-9211

SeymourJohnson@erau.edu

http://worldwide.erau.edu/locations/seymour-

<u>johnson</u>

Modes of Instruction: Classroom Online EagleVision Home Blended Program

# **Engineering Disciplines**

# **Aerospace Engineering**

#### **Program Description**

The Aerospace Engineering degree program prepares its graduates for careers in aircraft and space systems design, analysis and manufacturing.

**North Carolina State University** 

Department of Mechanical & Aerospace

Engineering

Engineering Bldg 3, Campus Box 7910

911 Oval Drive

Raleigh, NC 27695-7910

Contact:

Dr. Richard Gould

R J Reynolds Professor & Department Head

919-515-2368

gould@eos.ncsu.edu

www.mae.ncsu.edu

Bachelor of Science (BS) Master of Science (MS) and Doctor of Philosophy (PhD)

Mechanical Engineering (ME) Aerospace Engineering (AE).

Accelerated BS/MS and direct path to PhD options in both ME and AE.

Graduation in May and December

# **Civil Engineering**

# **Program Description**

Programs focus on building durable infrastructure to support communities with safe and efficient energy, shelter and transportation. Students learn how to plan, design, construct, operate and maintain public infrastructures.

**Duke University** 

Pratt School of Engineering 305 Teer Engineering Bldg.

Box 90271

Durham, NC 27708-0271

Contact:

Tom Katsouleas

Professor and Vinik Dean of Engineering

919-660-5389

tom.katsouleas@duke.edu

www.cee.duke.edu

Bachelor of Science (BS)

Engineering Management.

Bachelor of Science (BS)

Master of Science (MS) and Doctor of Philosophy (PhD)

Certificate in Aerospace Engineering

The 4+1 program offers students with enough credits to begin taking graduate

senior year. Master of Engineering,

Master of Science or Master of

courses towards a master's degree during

North Carolina A&T University

1601 East Market Street Greensboro, NC 27411

Contact:

Sameer A. Hamoush, Ph.D., P.E.

Chairman, Civil, Architectural and Environmental

**Engineering Department** 

336-285-3677

sameer@ncat.edu

www.ncat.edu/academics/schools-

colleges1/coe/caee

Master of Science (MS)

Civil and Architectural Engineering
Dual degrees possible in Architectural and
Civil Engineering. Masters Degree offers
three majors: Building Energy; Civil

Infrastructures: and Environmental /

Water Resources

North Carolina State University

Department of Civil, Construction, and Environmental Engineering- College of

Engineering 409 Mann Hall

Campus Box 7908

Raleigh, NC 27695-7908

Contact:

Dr. Paul Khosla

Director, CTES and TMRC/Professor

919-515-7835

khosla@eos.ncsu.edu

www.ce.ncsu.edu

Bachelor of Science (BS) Master of Science (MS)

Seven graduate programs: computing & systems, construction engineering and management, water resources and environmental engineering, structural engineering and mechanics,

engineering and mechanics,

transportation systems and materials, and

geotechnical/geoenvironmental

engineering.

Graduation in May and December

**University of North Carolina at Charlotte** 

9201 University City Boulevard

Charlotte, NC 28223-0001

Contact:

Anthony (Tony) Brizendine, Ph.D., PE, PLS.

Professor, Department Chairman

704-687-5050

albrizen@uncc.edu

http://cee.uncc.edu

Bachelor of Science (BS) Master of Science (MS) and Doctor of Philosophy (PhD)

Offers three graduate degrees: Master of

Science in Civil Engineering or

Engineering and PhD in Infrastructure and

Environmental Systems.

# **Computational Science and Engineering**

# **Program Description**

Computational technology is a crucial methodology for all sciences, even those that are not traditionally computationally-intensive (such as the humanities and social sciences). Graduates will acquire a wide range of computational skills that will allow them to solve large-scale data-intensive and real-life problems.

# North Carolina A&T State University

Electrical and Computer Engineering 1601 E. Market Street Greensboro, NC 27411

Contact:

Dr. Marwan Bikdash
Professor and Director
Computational Science and Engineering
336-334-7437
bikdash@ncat.edu
www.ncat.edu/academics/schoolscolleges1/coe/cse

Master of Science (MS) and Doctor of Philosophy (PhD)

CSE in an interdisciplinary graduate program offering M.S. and Ph.D. degrees in Computational Science and Engineering.

# **Computer Engineering**

# **Program Description**

Programs focus not on just how computer systems are engineered or built but how they can be applied to address societal needs. Students receive instruction and research in areas such as: power systems, optoelectronics, digital systems, VLSI design, data communications and networking, automatic control systems, electronics, embedded systems, microelectronics, power electronics, robotics, nanotechnology, and biomedical engineering.

#### North Carolina A&T State University

Electrical and Computer Engineering 1601 E. Market Street

Greensboro, NC 27411

Contact:

John C. Kelly, Ph.D.

Chairman, Electrical and Computer Engineering

Department

336-334-7760, ext. 210

ick@ncat.edu

www.ncat.edu/academics/schools-

colleges1/coe/elen

Bachelor of Science (BS)

Computer Engineering Electrical Engineering

Master of Science (MS) and Doctor of Philosophy (PhD) are available in Electrical Engineering.

#### University of North Carolina at Charlotte

The William States Lee College of Engineering Electrical and Computer Engineering 9201 University City Boulevard Charlotte, NC 28223-0001

Contact:

Dr. Ian Ferguson, Ph.D.
Professor and Department Chairman
704-687-8404

ianf@uncc.edu http://ece.uncc.edu Bachelor of Science (BS)

# **Electrical and Computer Engineering**

# **Program Description**

The Program emphasizes analytical thinking, problem solving, and technology, and each fosters the development of ethical leadership, communication, and teamwork skills. Students have five areas of concentration to choose: Computer Engineering and Digital Systems; Signal Processing, Communications, and Control Systems; Solid-State Devices and Integrated Circuits; Electromagnetic Fields; Photonics.

# **Duke University**

129 Hudson Hall Box 90291 Durham NC 27708 Contact:

Lawrence Carin
Chair, Professor of Electrical and Computer
Engineering
(919) 660-5270
<a href="mailto:lcarin@ee.duke.edu">lcarin@ee.duke.edu</a>
<a href="mailto:www.ece.duke.edu">www.ece.duke.edu</a>

Bachelor of Science (BS)
Certificate in Aerospace Engineering

Offers a PhD, a research-focused master of science and two applied master of engineering degrees.

# **Electrical Engineering**

# **Program Description**

Curriculums provide students with the opportunity to explore practical engineering and scientific concepts to create solutions for the engineering challenges of the future. Students should love math, have strong study habits, the ability to visualize abstract concepts, and a willingness to explore and create new designs from first principles.

# North Carolina A&T State University

Electrical and Computer Engineering 1601 E. Market Street Greensboro, NC 27411

Contact:

John C. Kelly, Ph.D.
Chairman, Electrical and Computer Engineering
Department
336-334-7760, ext. 210

jck@ncat.edu

www.ncat.edu/academics/schools-colleges1/coe/elen

Bachelor of Science (BS) Master of Science (MS) Doctor of Philosophy (PhD)

Four areas of concentration: Computer Engineering, Communications and Signal Processing, Electronic and Optical Materials and Devices, Power Systems and Control

# North Carolina State University

3098 Engr Bldg II Campus Box 7911

Contact:

Dr. Daniel Stancil
Department Head, Electrical and Computer Engineering

919-513-3606 ddstancil@ncsu.edu

www.ece.ncsu.edu/undergraduate/electrical\_engineerin

g

Bachelor of Science (BS)
Master of Science (MS)
Doctor of Philosophy (PhD)

Bachelor of Science (BS) Master of Science (MS) Doctor of Philosophy (PhD)

#### **University of North Carolina at Charlotte**

The William States Lee College of Engineering Electrical and Computer Engineering 9201 University City Boulevard Charlotte, NC 28223-0001

Contact:

Dr. Ian Ferguson, Ph.D.
Professor and Department Chairman
704-687-8404
ianf@uncc.edu
http://ece.uncc.edu

#### **Western Carolina University**

Department of Engineering and Technology 220 Belk Building 389 Centennial Drive Cullowhee, NC 28723

Contact:

Robert Adams

Ph.D., Interim Department Head, Associate Professor, EE & ECET Program Director

828-227-2181

radams@wcu.edu

www.wcu.edu/academics/departments-schools-colleges/Kimmel/academic-programs-degrees-

offered/engtech/ee

Bachelor of Science (BS) Master of Science (MS)

New Programs:

Engineering-Mechanical Engineering Concentration, B.S. (EAC of ABET Accreditation to be sought in 2017.)

Other Programs
Engineering Technology Technical Operations, B.S. Off-Site
Program
(This program is not Accredited by
ABET.)

# **Engineering**

# **Program Description**

Engineering programs are project based learning with high faculty-student interaction. Students will learn the application of scientific, economic, social and practical knowledge to prepare them to design, build and improve systems, structures, machines and other high tech devices.

#### **Fayetteville State University**

Department of Mathematics and Computer Science 1200 Murchison Road Fayetteville, NC 28301

Contact:

Dr. Cevdet Akbay, Chair 910-672-1943, STB 305 <u>cakbay@uncfsu.edu</u> www.uncfsu.edu/fsu-ncsu-engineering Bachelor of Science (BS)

The BS in Engineering at Fayetteville State University and North Carolina State University is a "3 + 2" Dual Degree Program. Students can earn two Bachelor of Science degrees in 5 years—one from each institution. Four engineering programs are offered: Chemical Engineering, Computer Engineering, Electrical Engineering Civil Engineering.

# North Carolina State University at the University of North Carolina at Asheville

NC State University Engineering Programs: UNC Asheville CPO#2360 One University Heights Asheville, NC 28804-8511

Contact:

Dr. Stephen Walsh Director Bachelor of Science (BS)

NC State University Bachelor of Science in Engineering degree - Mechatronics Concentration (JEM) - Administered on the campus of UNC Asheville. Comprises course work from the Departments of Mechanical and Aerospace Engineering (MAE), Electrical and Computer Engineering (ECE) and Mechatronics.

828-251-6944 siwalsh@ncsu.edu www.engr.ncsu.edu/mechatronics/joint.php

From the University of North Carolina at Asheville comes an engineering-themed **Humanities and Social Science** component with a rich liberal arts foundation.

# **East Carolina University**

Department of Technology Systems Science and Technology Building, Suite 201 Greenville, NC 27858

Contact:

Dr. Hayden Griffin **Engineering Chair** 252-7373-1026 griffin@ecu.edu www.ecu.edu/cs-tecs/engineering Bachelor of Science (BS)

Offers five areas of concentration: Biomedical Engineering, Bioprocess Engineering, Electrical Engineering, Industrial and Systems Engineering, Mechanical Engineering

# Industrial Engineering

# **Program Description**

Students learn to make decisions concerning the best use of people, material, equipment, and energy in achieving an organization's aims. The industrial engineer systematically collects, analyzes, and arranges factual information in such a way as to fulfill management's needs.

# **North Carolina State University**

Industrial & Systems Engineering 400 Daniels Hall College of Engineering North Carolina State University Raleigh, NC 27695

Contact:

Paul Cohen

Edgar S. Woolard Distinguished Professor

& Department Head (919) 513-2857 pcohen@ncsu.edu www.ise.ncsu.edu

Bachelor of Science (BS) Master of Science (MS) Doctor of Philosophy (PhD)

Three Masters degree programs are currently offered: Master of Industrial Engineering, MIE; the Master of Science in Industrial Engineering, MSIE; and the dual Master of Industrial Engineering/Master of Business Administration, MIE/MBA. In addition, we offer a Doctorate (PhD) in Industrial Engineering.

# Industrial and Systems Engineering

#### **Program Description**

The Program transforms the industrial and systems engineering pipeline by providing educational and research experiences relevant to societal and industry needs and enabling individual development into technically proficient, culturally competent, collaborative leaders making a positive difference for their employers, communities, and the discipline; always embracing excellence in performance and conduct.

#### North Carolina A&T University

Industrial & Systems Engineering 1601 E. Market Street Greensboro, NC 27411

Contact:

Dr. Tonya Smith-Jackson Department Chair

Bachelor of Science (BS) Master of Science (MS) Doctor of Philosophy (PhD)

# **Materials Science Engineering**

# **Program Description**

The mission is to provide students with a sound materials engineering education, advance the understanding and application of scientific principles, enhance economic development, and improve the quality of life of citizens. Students are exposed to modern materials engineering principles and have access to modern equipment and technology.

# North Carolina State University

Department of Materials Science and Engineering 911 Partners Way EB I, Room 3002 Raleigh, NC 27695-7907

Contact:

Justin Schwartz
Department Head and Kobe Steel Distinguished
Professor
919-515-0493
iustin\_schwartz@ncsu.edu

Bachelor of Science (BS)
Master of Science (MS)
Master of Materials Science and
Engineering (MMSE)
Doctor of Philosophy (PhD)
The Minor in Materials Science and
Engineering provides undergraduate
engineering and science majors in
curricula other than MSE with the
fundamentals of modern materials
science and engineering.

# **Mechanical Engineering**

# **Program Description**

www.mse.ncsu.edu

Mechanical engineering involves practical application of mechanical and thermal sciences to research, design, development, testing and manufacturing of a wide variety of products. Programs have evolved to include areas such as robotics, mechatronics, precision engineering, automated manufacturing systems, combustion and propulsion.

#### **Duke University**

Department of Mechanical Engineering and Materials Science Box 90300 Hudson Hall Durham, NC 27708-0287

Contact:

Earl H. Dowell Chair 919-660-5302

dowell@mail.ee.duke.edu

www.mems.duke.edu

# North Carolina A&T University

Mechanical Engineering Department 1601 East Market Street Greensboro, NC 27411

Contact:

Samuel P. Owusu-Ofori Professor and Chairperson 336-285-3748 Bachelor of Science-Engineering (BSE)
Master of Science (MS)
Master of Engineering (MEng)
Doctor of Philosophy (PhD)

Certificate in Aerospace Engineering

4+1: BSE+Master's Degree can be obtained in five years. The school recently launched an undergraduate certificate programs with specialization in Aerospace Engineering.

Bachelor of Science (BS) in Mechanical Engineering Master of Science (MS) in Mechanical Engineering Doctor of Philosophy (PhD)

The undergraduate degree program has an Aerospace Option for students who are

ofori@ncat.edu www.ncat.edu/academics/schoolscolleges1/coe/meen

interested in aerodynamics, aeropropulsion, avionics and aero-structures.

North Carolina State University

Department of Mechanical & Aerospace

Engineering

Engineering Bldg 3, Campus Box 7910

911 Oval Drive

Raleigh, NC 27695-7910

Contact:

Dr. Richard Gould

R J Reynolds Professor & Department Head

919-515-2368

gould@eos.ncsu.edu www.mae.ncsu.edu Bachelor of Science (BS) Master of Science (MS) Doctor of Philosophy (PhD)

Mechanical Engineering (ME) Aerospace Engineering (AE).

Accelerated BS/MS and direct path to PhD options in both ME and AE.

Graduation in May and December

**University of North Carolina at Charlotte** 

9201 University City Boulevard Charlotte, NC 28223-0001

Contact:

Robert E. Johnson

Professor and Dean, College of Engineering

704-687-8242

robejohn@uncc.edu https://mees.uncc.edu Bachelor of Science in Mechanical Engineering (B.S.M.E.) - with concentrations in Motorsports or Energy Engineering

Master of Science in Mechanical

Engineering (M.S.M.E.)

Master of Science in Engineering (M.S.E.)

Doctor of Philosophy in Mechanical

Engineering (Ph.D.)

# **Systems Engineering**

# **Program Description**

Systems Engineering and Engineering Management (SEEM) students are exposed to systems, management, business, and engineering concepts as well as applications. The Program develops the knowledge and skills necessary to effectively solve complex problems and manage multidisciplinary project teams.

# **University of North Carolina at Charlotte**

The William States Lee College of Engineering Systems Engineering and Engineering Management 9201 University City Boulevard Charlotte, NC 28223-0001

Contact:

Dr. Ertunga C. Ozelkan Associate Professor, Interim Chair of Systems Engineering & Engineering Management 704-687-1952

ecozelka@uncc.edu https://seem.uncc.edu Bachelor of Science (BS) Master of Science (MS) Doctor of Philosophy (PhD)

SEEM partners with the Ph.D. programs of the Electrical and Computer Engineering, and Mechanical Engineering and Engineering Science Departments. As a result, doctoral studies in the areas of systems engineering and engineering management may be possible through the Ph.D. program in Mechanical Engineering, and the Ph.D. program in Electrical Engineering.

# **Computer Science Disciplines**

# **Computer Science**

# **Program Description**

Computer Science is focused more on the creative engineering aspects of software design & development than merely on programming. Curriculum provides students with exposure to areas such as: Game Design, Cyber Security, Robotics, Software Engineering, and Computational Science & Engineering.

# **Appalachian State University**

P.O. Box 32133 CAP Science Building Boone, NC 28608-2133 Contact:

Dr. James Wilkes Chairperson 828-262-2370

jtw@cs.appstate.edu

http://compsci.appstate.edu

Bachelor of Science (BS) Master of Science (MS)

The curriculum includes a balance between theory and applications and is built around a core of required courses in the basic areas of computer science.

# Fayetteville State University

Department of Mathematics and Computer Science 1200 Murchison Road Fayetteville, NC 28301

Contact:

Dr. Dwight House Chair 910-672-1111 dhouse@uncfsu.edu http://www.uncfsu.edu/macsc

# Bachelor of Science (BS)

FSU is the only NC higher education institution to win an award from the Institute for Personal Robots in Education (IPRE). The school received paperback book-sized robots called Scribblers to enhance curriculum using the robots as a context for teaching foundational computing skills.

#### North Carolina A&T University

Computer Science Department 1601 E. Market Street Greensboro, NC 27411 Contact:

Gerry V. Dozier, Ph.D. Chairman and Professor 336-285-3693

gvdozier@ncat.edu

www.ncat.edu/academics/schools-

colleges1/coe/comp

Bachelor of Science (BS) Master of Science (MS)

The Computer Science Department performs research funded by agencies including the National Aeronautics and Space Administration, the U.S. Air Force, the National Security Agency, the Naval Oceanographic Office, National Science Foundation and among others.

# North Carolina State University

Department of Computer Science 890 Oval Drive, Campus Box 8206 Raleigh, NC 27695-8206

Contact:

Dr. Mladen Vouk, Department Head 919-513-0348 vouk@csc.ncsu.edu

http://www.csc.ncsu.edu

Bachelor of Science (BS) Master of Science (MS) Doctor of Philosophy (PhD)

Master's Degree Program offers: Master of Science (thesis), Master of Computer Science (non-thesis) and Master of Computer Networking (thesis or non-thesis).

#### **University of North Carolina at Greensboro**

Department of Computer Science 67 Petty Building Greensboro, NC 27402-6170

Contact:

SteveTate

Professor and Department Head 336.256.1112 - Petty 166

srtate@uncq.edu

http://www.uncg.edu/cmp

Bachelor of Science (BS) Master of Science (MS) Accelerated BS+MS Program available for students to earn both degrees in five vears.

# **Winston-Salem State University**

Department of Computer Science Elva J. Jones Computer Science Building 601 Martin Luther King Jr. Drive Winston-Salem, NC 27110

Contact:

Elva J. Jones, Ph.D. Chairperson, 336-750-2480 ionese@wssu.edu http://compsci.wssu.edu Bachelor of Science (BS) Master of Science (MS)

Offer three degree programs: Bachelor of Science in Computer Science, Bachelor of Science in Information Technology, Master of Science in Computer Science and Information Technology.

# **Computer Science – System Option**

# **Program Description**

The Program enables students to achieve the following: Knowledge of mathematical, algorithmic, and computing principles appropriate to the design and implementation of computer-based systems; Apply analysis, design, development, and testing principles in the construction of software systems; Function effectively on a software development team; and Communicate effectively on technical subject matters.

#### **University of North Carolina at Wilmington**

Department of Computer Science CIS Building, Room 2010 601 South College Road Wilmington, NC 28403

Contact:

Dr. Laurie Patterson Department Chair, Associate Professor 910-962-3906 pattersonl@uncw.edu http://uncw.edu/csc

Bachelor of Science (BS) Master of Science (MS) The Master of Science in Computer Science and Information Systems (MSCSIS) degree is part of the Professional Science Master's (PSM) Program, new graduate degrees designed to allow students to pursue advanced training in science or mathematics, while simultaneously developing workplace skills highly valued by employers.

# **Information Technology**

#### **Program Description**

The Computer Science (CS) program prepares students for a wide range of career opportunities. Career paths are: computer programming, computer system analyst, database administration, network administration, applications development/ support, computer-aided design, computeraided engineering, software engineering, computer graphics, visualization, imaging, Internet applications development, computational science, and hardware support.

#### **Winston-Salem State University**

Department of Computer Science Elva J. Jones Computer Science Building 601 Martin Luther King Jr. Drive Winston-Salem, NC 27110

Contact:

Elva J. Jones, Ph.D. Chairperson, 336-750-2480 jonese@wssu.edu http://compsci.wssu.edu Bachelor of Science (BS) Master of Science (MS)

Offer three degree programs: Bachelor of Science in Computer Science, Bachelor of Science in Information Technology, Master of Science in Computer Science and Information Technology.

# **Technology Disciplines**

# **Civil Engineering Technology**

# **Program Description**

The Civil Engineering Technology program at UNC Charlotte includes education, research, and technology development in the following areas of Civil Engineering Technology: Structures; Construction; Transportation; Water Resources; and Geotechnical.

# **University of North Carolina at Charlotte**

The William States Lee College of Engineering Engineering Technology and Construction Management 9201 University City Boulevard Charlotte, NC 28223-0001

Contact:

Anthony (Tony) Brizendine, Ph.D. ,PE, PLS. Professor, Department Chairman 704-687-5050 <a href="mailto:albrizen@uncc.edu">albrizen@uncc.edu</a> <a href="http://et.uncc.edu">http://et.uncc.edu</a>

Bachelor of Science (BS) Master of Science (MS)

Undergraduate programs include: Civil Engineering Technology, Construction Management, Electrical Engineering Technology, Fire Safety Engineering Technology, Mechanical Engineering Technology Graduate programs include Construction and Facilities Management and Fire Protection and Administration

# **Electrical Engineering Technology**

# **Program Description**

The Program graduates of the Bachelor of Science in Engineering Technology (B.S.E.T.) program for careers across a broad spectrum of technologies. Course-work includes: Linear Circuits; Digital Logic and Systems; Microprocessors, Microcontrollers and Embedded Systems; Electronic Circuits and Systems; Control Systems; and Power Systems.

# **University of North Carolina at Charlotte**

The William States Lee College of Engineering Engineering Technology and Construction Management 9201 University City Boulevard Charlotte, NC 28223-0001

Contact:

Anthony (Tony) Brizendine, Ph.D. ,PE, PLS. Professor, Department Chairman 704-687-5050 <a href="mailto:albrizen@uncc.edu">albrizen@uncc.edu</a> <a href="http://et.uncc.edu">http://et.uncc.edu</a>

Bachelor of Science (BS) Master of Science (MS)

Undergraduate programs include: Civil Engineering Technology, Construction Management, Electrical Engineering Technology, Fire Safety Engineering Technology, Mechanical Engineering Technology Graduate programs include Construction and Facilities Management and Fire Protection and Administration

# **Electrical and Computer Engineering Technology**

# **Program Description**

The program emphasizes the application of microcomputers to the solution of industrial problems relating to automation, instrumentation, and control, in systems involving robotics, data communications, networks, and/or automated testing. In all cases, microcomputer hardware and software are used for data acquisition, transfer, and analysis.

# **Western Carolina University**

Department of Engineering and Technology 220 Belk Building 389 Centennial Drive Cullowhee, NC 28723

#### Contact:

Robert Adams

Ph.D., Interim Department Head, Associate Professor, EE & ECET Program Director 828-227-2181

radams@wcu.edu

www.wcu.edu/academics/departments-schoolscolleges/Kimmel/academic-programs-degreesoffered/engtech/ecet Bachelor of Science (BS) Master of Science (MS)

#### **New Programs:**

Engineering-Mechanical Engineering Concentration, B.S. (EAC of ABET Accreditation to be sought in 2017.)

Other Programs
Engineering Technology - Technical
Operations, B.S. Off-Site Program
(This program is not Accredited by ABET.)

# **Electronics Engineering Technology**

# **Program Description**

Graduates of this degree program design, install, maintain, and repair electrical and electronic equipment.

# **ECPI University – School of Technology**

# **Charlotte Location:**

4800 Airport Center Parkway Charlotte, NC 28208 866-708-6167 www.ecpi.edu/technology/location/charlotte

# **Concord Location:**

124 Floyd Smith Drive Charlotte, NC 28262 866- 708-6169 www.ecpi.edu/technology/location/charlotteconcord

#### **Greensboro Location:**

7802 Airport Center Drive Greensboro, NC 27409 336- 665-1400 www.ecpi.edu/technology/location/greensboro

# **Raleigh Location:**

4101 Doie Cope Road Raleigh, NC 27613 866-708-6173

www.ecpi.edu/technology/location/raleigh

Bachelor of Science Associate Degree

Concentration in mechatronics available.

Must earn 124 semester credit hours. Program requires a minimum of 8 semesters or 30 months of instruction.

In 2.5 years, through the year-round schedule, students can earn a Bachelor Degree.

ECPI provides students in this program with vouchers to take certification exams at a greatly reduced cost. Available certifications for this program include Fiber Optics Installer (FOI), Fiber Optics Technician (FOT), A+ Certification, Network+ Certification, Security+ Certification, GMDSS - Global Maritime Distress and Safety System Maintainer License, GROL - General Radiotelephone Operator's License, and Associate CET.

# **Engineering Technology, Applied Systems Technology**

# **Program Description**

The mission of the Engineering Technology Program is to prepare graduates with the technical and managerial skills necessary to enter careers in process and systems design, technical sales, manufacturing operations, maintenance or service functions of a manufacturing enterprise.

#### **Western Carolina University**

Department of Engineering and Technology 220 Belk Building 389 Centennial Drive Cullowhee, NC 28723

Contact:

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Professor, EE & ECET Program Director

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New Programs: Engineering-Mechanical Engineering Concentration, B.S. (EAC of ABET

Accreditation to be sought in 2017.)

Other Programs
Engineering Technology - Technical
Operations, B.S. Off-Site Program
(This program is not Accredited by ABET.)

# **Mechanical Engineering Technology**

# **Program Description**

The Mechanical Engineering Technology program includes education, applied research, and technology development in the areas of: Machine Design – Including product design and development; Thermodynamics – Including power plant and engine design, and heating, ventilating, and air conditioning; Fluid mechanics – Including fluid flow and pipeline design; Dynamics – Including mechanical systems analysis; Instrumentation and hands-on laboratories

#### **University of North Carolina at Charlotte**

The William States Lee College of Engineering Engineering Technology and Construction Management 9201 University City Boulevard Charlotte, NC 28223-0001

Contact:

Anthony (Tony) Brizendine, Ph.D. ,PE, PLS. Professor, Department Chairman 704-687-5050

albrizen@uncc.edu

http://et.uncc.edu/undergraduate-

programs/mechanical-engineering-technology

Bachelor of Science (BS)

Machine Design, Thermodynamics, Fluid mechanics, Dynamics, Instrumentation and hands-on laboratories