The focus of the Engineering and Technology Management Degree is on providing an education to working professionals to enhance their value and mobility in their organization - either commercial or government. It is currently the ONLY degree in the College of Engineering and Science that can be completed entirely online. In particular, this degree is well suited for people in the armed forces.

The On-Line MSETM is a 33 credit hour non-thesis program. Military students may transfer up to 9 hours credit from the listed Air University On-Line Master’s Program courses or Air Command and Staff/Air War College equivalents.


**GENERAL PROGRAM INFORMATION**

Dr. Beth Hegab  
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318.257.3107

Dr. Scott Forrest  
Director, Louisiana Tech Shreveport Center  
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318.671.7803

**CORE COURSES – 21 hours (7 courses)**

- FINC 577 Acct & Fin for Non-Financial Mgrs
- INEN 502 Operations Research Methods
- INEN 505 Manufacturing & Operations Analysis
- INEN 507 Engineering Administration
- INEN 509 Economics & Decision Making
- INEN 514 Statistical Analysis for Six Sigma
- INEN 518 Project Management

**ELECTIVES – 12 hrs required (9 hrs can be met with AU/OLMP or equivalent ACSC/ AWC credit)**

- AP Air Power Studies
- NS International Security Studies
- JP Joint Planning
- EL Expeditionary Ldrship in Intercultural Environments
- OL Organizational Leadership
- TL Team Building Leadership

**OTHER ACCEPTABLE ELECTIVES**

- BUSN 501 Global Perspectives in Business Mgmt
- CIS 510 Information Resource Management
- ENGR 566 Six Sigma & Quality Control
- ENTR 501 Technology Transfer & Commercialization
- ENTR 510 Entrepreneurship for High-Tech Start-Ups
- ENTR 560 Innovative Venture Research
- INEN 503 Management of Engineering Functions
- INEN 504 Simulation
- INEN 511 Facilities Planning
- INEN 512 Reliability Engineering
- INEN 515 Logistics Planning
- INEN 516 Production Planning & Sequencing
- MGMT 470 Personnel Management
- MGMT 510 Contemporary Management
- MKTG 530 Marketing Management
- PSYC 513 Organizational Psychology
- PSYC 516 Personnel Psychology
- PSYC 523 Leadership Decision Making
# Master of Science in Engineering and Technology Management with Military Science/Technology Core

**Core Courses**

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<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>FINC 577</td>
<td>Accounting and Finance for Non-Financial Managers</td>
</tr>
<tr>
<td>INEN 502</td>
<td>Operations Research Methods</td>
</tr>
<tr>
<td>INEN 505</td>
<td>Manufacturing and Operations Analysis</td>
</tr>
<tr>
<td>INEN 507</td>
<td>Engineering Administration</td>
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<tr>
<td>INEN 509</td>
<td>Economics and Decision Making</td>
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<tr>
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<td>Statistical Analysis for Six Sigma</td>
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<tr>
<td>INEN 518</td>
<td>Project Management</td>
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**Electives**

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<td>BUSN 501</td>
<td>Global Perspectives in Business Management</td>
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<td>CIS 510</td>
<td>Information Resource Management</td>
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<tr>
<td>ENGR 566</td>
<td>Six Sigma and Quality Control</td>
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<td>Personnel Psychology</td>
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<tr>
<td>PSYC 523</td>
<td>Leadership Decision Making</td>
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**Military Science/Technology Core**

- **Up to 9 hours (from AU OLMP* or ACSC** equivalent)
  - AP: Air, Space & Cyberspace Power Studies
  - NS: International Security Studies
  - JP: Joint Planning
  - OL: Organizational Leadership
  - TL: Team Building Leadership

**Other Electives**

- BUSN 501: Global Perspectives in Business Management
- CIS 510: Information Resource Management
- ENGR 566: Six Sigma and Quality Control
- ENTR 501: Technology Transfer and Commercialization
- ENTR 510: Entrepreneurship for High-Tech Start-Ups
- ENTR 560: Innovative Venture Research
- INEN 503: Management of Engineering Functions
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- INEN 511: Facilities Planning
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- PSYC 523: Leadership Decision Making

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*The Air University On-Line Master’s Program (AU OLMP) is an accredited Master’s Degree program designed for military officers. For more information see: [http://www.au.af.mil/au/dlmasters.asp](http://www.au.af.mil/au/dlmasters.asp)*

**Air Command and Staff College (ACSC) Professional Military Education (PME) courses have been deemed by the American Council on Education (ACE) to be worthy of 3 hours of graduate credit a piece. ACE has been providing reviews of military education programs since 1945. For more information see: [http://www.militaryguides.acenet.edu](http://www.militaryguides.acenet.edu)
Courses Accepted as part of the Military Science/Technology Core

(Courses not on this list need to be reviewed by the ETM program coordinator to determine if they will transfer.)


Air, Space, and Cyberspace Power Studies - (3 Semester Hours)

The Air, Space, and Cyberspace Power Studies (AP) course enhances students’ understanding of military theory by introducing perspectives on war fighting with specific emphasis on air, space, and cyberspace power. It looks specifically at the development of air, space, and cyberspace power and examines the organizations and strategies that have been involved in their employment. In addition, the course analyzes the role these elements might play in future operations.

International Security Studies - (3 Semester Hours)

The International Security Studies (NS) course provides a foundation for understanding the international security environment, its implications for the United States, and how the United States both shapes and responds to this environment. The course also examines the instruments of power (IOP) and how these are wielded by both state and nonstate actors to affect the international environment. In addition, the course examines the US national strategic decision-making process, examining how the actors and systems translate policy into action through the use of the IOPs.

Joint Forces - (3 Semester Hours)

The Joint Forces (JF) course presents the joint and service doctrinal perspectives that guide joint force commanders and their staffs as they seek to achieve assigned theater security objectives. The course provides an overview of joint force organizational structures and the framework within which joint forces are created, employed, and sustained. It also examines each of the military services, exploring their capabilities and limitations. In addition, the course analyzes the ways in which joint force commanders integrate service and functional component command support to achieve success at the operational level of war.

Joint Planning - (3 Semester Hours)

The Joint Planning (JP) course introduces students to the complexities and requirements of joint planning. Through the course, students will study pertinent doctrine and the joint operation planning process, analyze the challenges joint force commanders face in attaining unified action, and examine ways in which operational art and design are applied to achieve objectives. Additionally, students examine planning considerations across the range of military operations. The course culminates with students synthesizing what they have learned to create key elements of a campaign plan. This course is a prerequisite to the Joint Air and Space Operations (JA 5510) course.

Expeditionary Leadership in Intercultural Environments - (3 Semester Hours)

The Expeditionary Leadership in Intercultural Environments course provides an understanding of regional factors that affect national foreign policy and explores global, regional, and cultural issues associated with participating in joint and coalition operations. It stresses the importance of cultural awareness and intercultural competence when dealing with the peoples of regions likely to require US military assistance. The course also
examines deployment-specific leadership issues focusing on warrior ethos, including mental and physical preparation, military bearing, and self-discipline.

**Organizational Leadership - (3 Semester Hours)**

The Organizational Leadership course is designed to develop officer organizational and management skills to better support and lead change in complex institutional structures. The course focuses on basic organizational theory and communications, change management, strategies for continuous improvement, and resource stewardship. It enhances officers’ ability to deal with the financial, informational, technological, and human resource issues that may affect mission capabilities, while utilizing appropriate methods to identify opportunities, implement viable solutions, and measure the impact of outcomes. Further, this course advocates a commitment to continuous improvement, necessary to ameliorate processes, products, and people, while meeting the needs of internal and external stakeholders in order to accomplish Air Force mission requirements efficiently.

**Team Building Leadership - (3 Semester Hours)**

The Team Building Leadership course examines command from the perspective of officers in formal leadership billets. The course explores building leaders, motivation, force development, mentoring, organizational design and decision-making, power and authority, morality and ethics, leading change, organizational culture, and communication. It examines the composition, function, and purpose of the flight, in the context of the roles, responsibilities, knowledge, skills, and attitudes expected of officers in leadership positions. Academic content and practical examples are integrated with activities from operational fields to leverage officers’ education, training, and experience in order to equip them with new or enhanced skill sets including the ability to inspire, develop, and take care of diverse groups of individuals while leading them to mission success.