

FUNCTIONAL AREA (FA24) COURSE

COURSE INFORMATION:

Course Title: Functional Area (FA24) Courses

Course Number:

- 7E-F70 (24A) - Information Systems Operations Leveler (ISOL) Course

- 4C-24A - Telecommunications Systems Engineering Course (TSEC)

442nd Signal Battalion - FA24 COURSE

Last Updated: 30 March 2016

Company: Charlie Company

College: Leader College for Network Operations (LCNO)

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Last Updated: 30 March 2016

Division: Network Management Division (NMD)

Status Change Date: November 2013

Training site: USASCoE&FG, Fort Gordon, GA

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Length: 133 Academic Hours

Managed: Army Training Requirements and Resources System (ATRRS)

Prerequisites: Army Training Requirements and Resources System (ATRRS)

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Prerequisites: Undergraduate degree in electrical engineering, computer systems engineering,

computer science software engineering, telecommunications engineering, mathematics, physics, or a

related technical field of discipline.

COURSE OVERVIEW:

What is a FA24? Telecommunications Systems Engineering (FA24) is a functional area within the Network and Space Group of the Operational Support (OS) functional category. Telecommunications networks form the interconnectivity and backbone of the information technology infrastructures that comprise cyberspace. Telecommunications systems engineering officers are essential to providing and defending the Army's portion of cyberspace and enabling effects in and through the cyberspace domain. FA24 provides the Army with a corps of highly skilled network engineering and defense professionals, who plan, engineer, test and validate the installation, operation, maintenance and protection of Army telecommunication systems and networks using existing and future military and commercial information technologies. Telecommunication systems engineers operate enterprise-wide together with Signal Operations (BR25) and Information Systems Management (FA53) officers, Signal warrant officers and Soldiers to provide the communications networks and information services necessary for full spectrum operations in an Army and Joint environment.

PURPOSE:

Prepare qualified Captains and Field Grade officers, designated Functional Area 24, for technically demanding assignments that require expertise in the engineering, validating, monitoring, and restoration

of telecommunication networks that integrate Army, Joint, and Commercial-Off-The-Shelf transmission,

switching, encryption, and network management systems and equipment.

SCOPE:

Prepare students with educational knowledge, skills, and hands-on experience in planning, developing, and evaluating DOD strategic and tactical telecommunication networks through engineering, integration, security and optimization. Students will gain an advanced working knowledge of telecommunications, data communications, cryptography and network security, network management and security, network architecture design, and project management. Students will receive approximately 400 hours of conference and 300 hours of hands-on exercises and independent study. Module topics are discussed in great depth. Students are expected to complete comprehensive written and hands-on examinations as well as written research reports, homework assignments, and computer simulations for each module. Students that graduate will have the requisite skills to engineer, validate, monitor, and restore Army, Joint, and COTS telecommunications systems and equipment. Upon completion, this accredited graduate level program of instruction will enable higher education learning opportunities via three cooperative agreement colleges: University of Colorado, Boulder; University of Maryland, University College; and Syracuse University. Additional institutions of higher education may give equivalent masters level credit on a case by case basis.

COURSES:

The FA24A Program is composed of two ATRRS Courses:

- 7E-F70 (24A) Information Systems Operations Leveler (ISOL) Course
- 4C-24A Telecommunications Systems Engineering Course (TSEC)

7E-F70 (24A) Information Systems Operations Leveler (ISOL) Course

ISOL provides a foundation of system networking and engineering mathematics that are common to telecommunications and data communications technology concepts, principals, and theory. ISOL also provides the foundation for professional networking switching and routing certifications.

Students attending the 7E-F70 (24A) ISOL course must arrive to Fort Gordon, GA via PCS orders for a minimum duration of 30 weeks. The duration of the 7E-F70 (24A) ISOL is 10 weeks. Graduates will immediately begin the follow on 4C-24A Telecommunication System Engineer (TSE) Course for a duration of 20 additional weeks. The 2 courses are contiguous. The 7E-F70 (24A) ISOL cannot be waived based upon rank, education, or experience; NO EXCEPTIONS!

4C-24A Telecommunications Systems Engineering Course (TSEC)

TSEC prepares students with the educational knowledge, skills, and hands-on experience in planning, developing, and evaluating DOD strategic and tactical telecommunication networks through engineering, integration, security and optimization. Students will gain an advanced working knowledge of telecommunications, data communications, cryptography and network security, network management and security, network architecture design, and project management.

Upon graduation, students will have earned up to 15 transferrable college credit hours towards a Master's Degree from three Universities: University of Colorado, Boulder; University of Maryland, University College; and Syracuse University. Other Institutions of higher education have accepted transferable graduate level credit hours on a case by case basis

7E-F70 (24A) Information Systems Operations Leveler (ISOL) Course

ISOL provides a foundation of system networking and engineering mathematics that are common to telecommunications and data communications technology concepts, principals, and theory. ISOL also provides the foundation for professional networking switching and routing certifications.

Students attending the 7E-F70 (24A) ISOL course must arrive to Fort Gordon, GA via PCS orders for a minimum duration of 30 weeks. The duration of the 7E-F70 (24A) ISOL is 10 weeks. Graduates will immediately begin the follow on 4C-24A Telecommunication System Engineer (TSE) Course for a duration of 20 additional weeks. The 2 courses are contiguous. The 7E-F70 (24A) ISOL cannot be waived based upon rank, education, or experience; NO EXCEPTIONS!

4C-24A Telecommunications Systems Engineering Course (TSEC)

TSEC prepares students with the educational knowledge, skills, and hands-on experience in planning, developing, and evaluating DOD strategic and tactical telecommunication networks through engineering, integration, security and optimization. Students will gain an advanced working knowledge of telecommunications, data communications, cryptography and network security, network management and security, network architecture design, and project management.

Upon graduation, students will have earned up to 15 transferrable college credit hours towards a Master's Degree from three Universities: University of Colorado, Boulder; University of Maryland, University College; and Syracuse University. Other Institutions of higher education have accepted transferable graduate level credit hours on a case by case basis.

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Incoming Students:

You are strongly encouraged to visit the **TSEC MilBook** webpage at (<https://www.milsuite.mil/book/groups/tsec-course-page-fa24>) to find more information on course descriptions, syllabi, videos of classroom lectures, recommended readings, and up-to-date lesson's learned from recent course graduates.

Contact Information:

FA24 Course Manager
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(DSN 780-XXXX):
Fax: 706-791-6819

Website Links:

FA24 Facebook:
<https://www.facebook.com/FA24TSEC>
FA 24 MilBook
<https://www.milsuite.mil/book/groups/tsec-course-page-fa24>
FA24 MilWiki:
[https://www.milsuite.mil/wiki/Telecommunications Systems Engineering Course - TSEC](https://www.milsuite.mil/wiki/Telecommunications_Systems_Engineering_Course_-_TSEC)
FA24 MilTube:
<https://www.milsuite.mil/video/watch/video/1878>

Partnerships:

Syracuse University:
<http://ischool.syr.edu/future/washington/signalcenter.aspx>

University of Maryland University College
http://www.umuc.edu/military/milprograms/asc_tsec.cfm

University of Colorado Boulder:
<http://telecom.colorado.edu/military-students>

For website updates, contact:

Webmaster: [S6 Automations](#)

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