



Developing Adaptive Leaders for Full-Spectrum Operations:

The Engineer Captains Career Course

By Major John N. Carey

“The essential thing is action. Action has three stages: the decision borne of thought, the order or preparation for execution, and the execution itself. All three stages are governed by the will. The will is rooted in character, and for the man of action, character is of more critical importance than intellect. Intellect without will is worthless, will without intellect is dangerous.”¹

—General Hans von Seeckt

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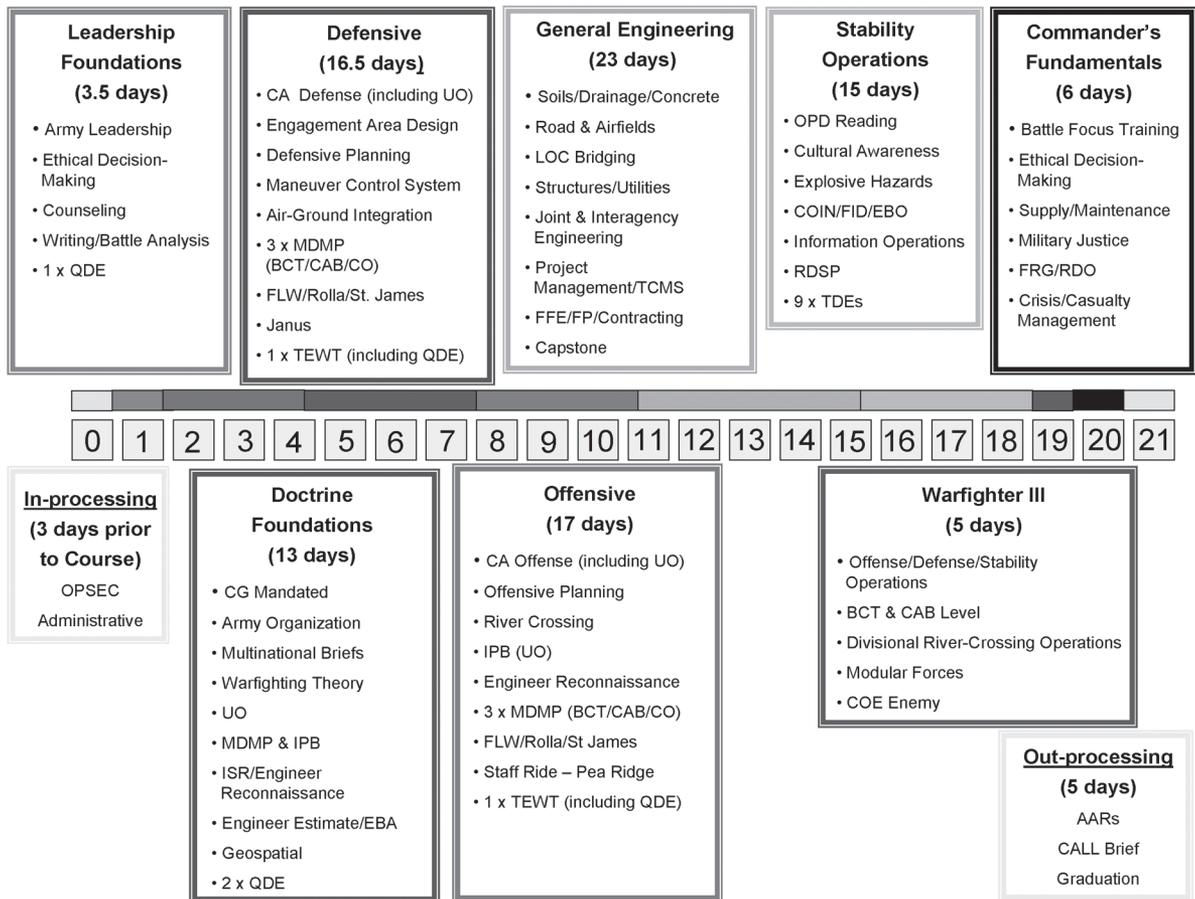
Success in full-spectrum operations requires several things: resourcefulness, knowing the enemy, determination, and leadership. From a training perspective, the challenge is to infuse these interdependent attributes into future commanders. How do we develop officers to be adaptable, creative, and intuitive? The Engineer Captains Career Course (ECCC) Division at the United States Army Engineer School, Fort Leonard Wood, Missouri, provides military education for full-spectrum operations (see figure, page 20). This article provides an overview of the current structure of the ECCC and how it develops captains for the contemporary operating environment (COE). We believe we are developing engineer commanders who are better prepared for the fight.

During the 21-week ECCC, the focus is always on quality and the individual. The teaching of doctrine emerges in an environment where “ideas are discovered and shared, not invented and arbitrarily imposed.”² The course encourages systemic thinking, emphasizing the “whole” over the “parts.” Students are taught how to think and are encouraged to experiment with doctrine, task organization, and decision-making strategies. The staff introduces warfighting theories using case studies from history and insists that students understand the maneuverist approach. Complex learning scenarios based on the modular force construct are volatile, indecisive, and ambiguous, ensuring that students attack the

enemy’s will to fight rather than just his physical ability to fight. Key objectives emphasized during the training include prompt analytical and intuitive decision-making, the ability to present clear verbal orders, the appropriate use of terrain, technical competence, independent initiative, and the ability to deal with uncertainty.

Changes in the course’s subject material include greater emphasis on urban operations (UO), foreign internal defense (FID), counterinsurgency (COIN), information operations, and air-ground integration. The instruction was developed in coordination with the Maneuver Captains Career Course at Fort Benning, Georgia, to ensure that engineer officers can “talk the talk” in a combined arms (CA) environment. Students receive one day of media awareness training with professional civilian journalists and university interns. They continue to receive instruction on explosive hazards management from the Counter Explosive Hazards Center at Fort Leonard Wood. General engineering instruction remains at a technical level, but focuses on subjects relevant to engineer captains. Training includes base camp design; tele-engineering; project management; contracting; force protection (FP); infrastructure reconnaissance; field force engineering (FFE); and joint, coalition, and interagency operations. The use of war games and simulation has increased. Students fight a battle on the Janus combat simulation

Engineer Captains Career Course



Legend:

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| BCT = brigade combat team | IPB = intelligence preparation of the battlefield |
| CAB = combined arms battalion | ISR = intelligence, surveillance, and reconnaissance |
| CG = commanding general | LOC = line of communication |
| CALL = Center for Army Lessons Learned | OPD = officer professional development |
| CO = company | OPSEC = operational security |
| EBA = engineer battlefield assessment | RDO = rear detail operations |
| EBO = effects-based operations | TCMS = Theater Construction Management System |
| FLW = Fort Leonard Wood | TDE = tactical decision-making exercise |
| FRG = family readiness group | |

program, receive focused feedback, and immediately fight the same battle again. Throughout this deliberate practice, students are actively coached by senior mentors.

The course promotes critical thinking by allowing students to examine different approaches and solutions to tactical problems without the fear of being criticized or ostracized. Throughout the training, they complete a professional reading program across the spectrum of operations. They brief peers and instructors on their findings and must be prepared to answer questions. Generic cultural awareness training and

ethical decision-making includes historical case studies; quick-decision exercises (QDE); and visiting lecturers, including civilians and international officers. This is reinforced with daily briefings on current affairs and read-ahead discussions. Students also complete unscheduled quizzes, capstone events, and multifaceted final exams.

Students are encouraged to study military history to develop a greater understanding of the military art. Each module is introduced using historical examples, and instructors use vignettes to demonstrate the practical application of theories.

Students are required to research historical battles and develop a thesis. The best academic paper for each course will be submitted to the Engineer Professional Bulletin <www.wood.army.mil/engrmag/default/htm> for publication. The students attend a two-day staff ride to expand their technical knowledge and support professional and personal growth. They conduct site visits and terrain walks to develop their awareness. Lessons learned from combat are rapidly included in training to ensure the relevance and currency of the subject matter.

Training media to develop adaptive thinking are diverse and include model and map exercises, QDEs, and tactical-decision games. These test the students' decision-making abilities in a time- and information-constrained environment. Examples include search, raid, quick-reaction force, and route clearance missions. With training such as river-crossing operations, students experience the problem first and learn the theory afterward. This ensures that the students have some understanding of the operation to reflect on before they receive the formal instruction.

During the appreciation process, the officers use troop-leading procedures; mission, enemy, terrain, troops, time available, and civilian considerations (METT-TC); the military decision-making process (MDMP); and the rapid decision-making and synchronization process (RDSP). They are introduced to international methods such as "The Seven Questions," from the British Army, and the "Combat Military Appreciation Process," from the Australian Army. Students also conduct tactical exercises without troops (TEWTs), which involve examining a tactical problem, conducting an appreciation, and producing a solution for the ground where the problem is set. The practical application of the plan is emphasized. Assessment is based on whether the student made a timely decision in keeping with the commander's intent and the changing situation. Problems and terrain are selected to encourage discussion and highlight selected issues.

Professional mastery is built on constant training, peer and instructor feedback, and assessment. Everyone, including cadre, receives evaluations. Senior mentors support instructors by providing guidance and effective feedback that focus on adaptive thinking, innovation, and outcomes rather than on performance to standard. The small-group leader performs the role of instructor, coach, and mentor, determining when each role is required and should take primacy in the relationship with each student. Physical fitness is stressed and greatly improved. Students conduct combatives training and plan and execute physical training schedules for their team. Rigorous self-examination is encouraged through command philosophy development, effective counseling, after-action reviews (AARs), media awareness training, and vigorous and open debate.

Finally, the course leverages technology—particularly distributed learning techniques—using the Blackboard Learning System™. The Engineer Leader Smart Book and a community site for alumni have also been developed in

coordination with training developers to ensure that course updates are available in the field. The cooperative degree program continues to be a significant aspect of the ECCC. This is an excellent opportunity for students to gain a master's degree with one of the universities that partners with the Engineer School. More importantly, the cooperative degree program fosters intellectual autonomy and confidence in reason.

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The ECCC is leading the rest in developing Army leaders for the 21st century. Recent graduates have informed instructors and training developers that they are better prepared for fighting full-spectrum operations. They are able to look at a problem from various perspectives, assess the risks, and make timely decisions. The recent changes in the course address the gaps in mental agility and tactical and technical proficiency. The ECCC teaches students *how* to think, not *what* to think, and encourages future commanders to dedicate themselves to lifelong learning. 

Major Carey, a member of the Australian Army, is the Division Chief, Engineer Captains Career Course, at the United States Army Engineer School, Fort Leonard Wood, Missouri. He has experience in providing engineer support to jungle, airmobile, and amphibious operations. He has commanded an engineer squadron in East Timor, taught tactics at the Royal School of Military Engineering in the United Kingdom, and served as an adviser on peace operations in Israel, Jordan, and Bougainville. He is a graduate of the Australian Defence Force Academy; the Royal Military College, Duntroon; and the Australian Command and Staff College.

Endnotes

¹ Hans Von Seeckt, *Thoughts of a Soldier*, E. Benn Ltd., Berlin, 1930.

² Major Don Vandergriff, "Raising the Bar – Creating Adaptive Leaders to Deal With the Changing Face of War" at <<http://www.d-n-i.net/vandergriff/rotc/rotc.htm>>.