

U.S. ARMY COMBINED ARMS CENTER
US ARMY COMMAND AND GENERAL STAFF COLLEGE
CURRICULUM DEVELOPMENT:
THE ACCOUNTABLE INSTRUCTIONAL SYSTEM
(*Effective Until Rescinded or Superseded)

1. PURPOSE. To provide the framework for curriculum analysis, design, development, implementation, and evaluation (ADDIE) process.

2. APPLICABILITY. This bulletin applies to all Command and General Staff College institutions, schools, and activities that develop and manage educational programs.

3. REFERENCES.

a. Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 1800.01E, Officer Professional Military Education Policy (OPMEP), changes dated 29 May 2015.

b. U.S. Army Training and Doctrine Command (TRADOC) Regulation 350-70, Army Training and Education Development, 6 December 2011.

c. U.S. Army Command and General Staff College (CGSC) Bulletin No. 908, Program Evaluation, August 2017.

d. CGSC Bulletin No. 907, Staff and Faculty Development Programs, 24 June 2013.

e. CGSC Circular 350-1, CGSC Catalog, available at the following web site:
<http://usacac.army.mil/organizations/cace/cgsc>.

4. INTRODUCTION.

a. CGSC Mission: The CGSC educates, trains, and develops leaders for unified land operations in a joint, interagency, inter-governmental, and multi-national operational environment; and advances the art and science of the profession of arms in support of Army operational requirements.

b. This bulletin describes how the Accountable Instruction System (AIS) supports development of courseware, explains implementation of the AIS process, and delineates responsibilities.

5. AIS OVERVIEW. The AIS is the curriculum development and change management process used to organize all curriculum development activities. To begin the process, the organization defines the learning outcomes.

a. Learning Outcomes. A learning outcome defines the expertise graduates need to be successful throughout the next 5 to 10 years of their careers. The organization should review their learning outcomes every 3 years at a minimum or as the needs of its

stakeholders change.

b. Alignment of Learning Outcomes. Schools verify alignment—or “nesting” —of learning outcomes with Army general learning outcomes for officers (all courses), joint learning areas/objectives for service intermediate-level college (CGSOC only), and joint learning areas/objectives for service senior-level college (ASLSP only). Schools use results from these audits to refine course outcomes, terminal learning objectives (TLOs), and enabling learning objectives (ELOs).

c. Approval of Learning Outcomes. The Dean of Academics (DOA) is responsible to assure all learning outcomes of the schools align with Joint and Army requirements. An organization may request the senior official in the Curriculum Design Review (CDR) approve learning outcomes.

d. Measurement of Learning Outcomes. Learning outcomes support the organizational mission. TLOs are the connection between the outcomes and the course content. Assessment of outcomes is determined via the assessment of the TLO.

6. AIS Goal.

a. The goal of AIS is to manage educational change. The AIS process develops curriculum and evaluates teaching and learning.

b. The AIS accomplishes the following:

(1) Develops instruction based on the mission and learning outcomes.

(2) Measures achievement of learning outcomes.

(3) Evaluates the need to adjust curriculum, faculty development, or other aspects of the educational model based on evaluation data.

(4) Regularly reviews learning outcomes.

c. The CGSC AIS is a structured process for timely, data-informed judgments about curricula effectiveness and continuing relevance to the Army. Effective execution of the AIS is the single most important way that CGSC remains the continuously adaptive learning organization demanded in the Army Learning Model.

7. THE AIS MODEL.

a. The AIS model (see figure 1) demonstrates the interdependence of the 5 phases of the ADDIE process.

The Accountable Instruction System

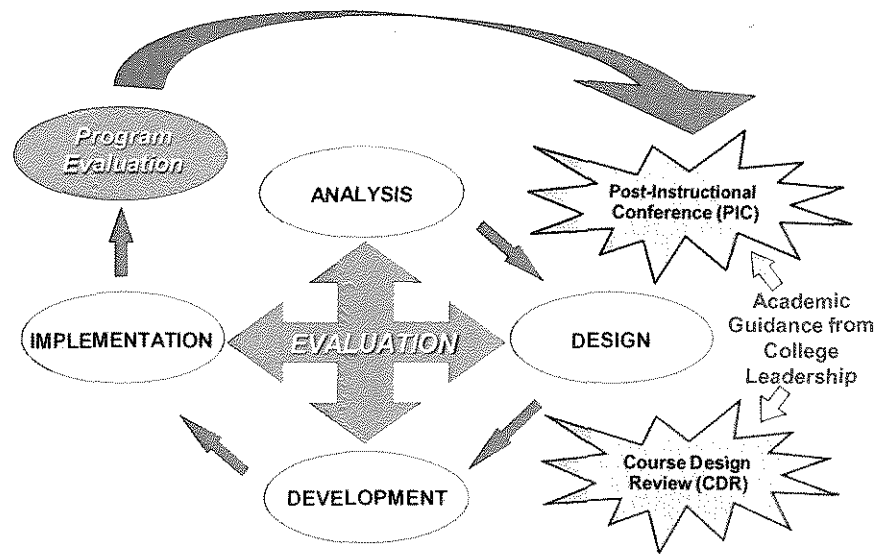


Figure 1. The AIS Model.

b. The AIS curriculum development process requires curriculum developers to continually evaluate the process and the products of each phase:

- (1) Analyze and determine instructional needs.
- (2) Design curriculum to meet the identified needs.
- (3) Develop instructional materials and courseware to support stated goals and objectives.
- (4) Implement developed courseware.
- (5) Evaluate effectiveness of the educational process and product.

c. Phases of AIS.

(1) Analysis: The analysis phase is the critical link between educational outcomes and course content. This phase determines curricula requirements to meet the needs of stakeholders. Analysis identifies: what to teach, how much to teach, student backgrounds, available resources, potential evaluation plan, and a milestone plan. Conducting a thorough analysis ensures the curriculum's relevancy and necessity.

(2) Design: The products created during the analysis phase drive the design phase. The topic list, created during analysis, translates into TLOs and subordinate ELOs. The TLOs directly support learning outcomes. School curriculum developers ensure learning is progressive and sequential. School curriculum developers design an

assessment plan and sample assessment instruments using both direct and indirect measures, conduct preliminary research for possible supporting materials, design the lesson plan outline, and update the availability of resources and milestone plan. They also design the evaluation plan to ensure the course or lesson meets its stated objectives.

(3) Development: The development phase expands on the products of the design phase. The curriculum developer continues the research process by gathering references and supporting materials. Instructional methodologies and media are selected and/or developed. The primary goal of development is to produce curriculum and instructional materials ready for implementation and use, validate assessment instruments and instructional materials, and develop the evaluation tools.

(4) Implementation: Implementation is a multi-phased process. It contains the following: Faculty Development Phase II, including curriculum content “train-up”; classroom implementation; the assessment of student learning; and evaluation data collection.

(5) Evaluation: Evaluation is a continuous process that consists of data collection and analysis to determine effectiveness and value of a course or program. The Master Evaluation Plan (MEP) outlines program evaluations by academic year. Organizations present their respective program evaluation at post-instruction conferences (PICs) per the MEP (see Annex A for clarification). School curriculum developers have responsibilities to coordinate collection data (direct and indirect measures of student achievement and feedback from students, faculty, staff, and when appropriate, graduates). The Quality Assurance Office (QAO) will provide assistance.

8. RESPONSIBILITIES.

a. Commandant. When available, the Commandant attends program course design reviews (CDR).

b. Deputy Commandant (DC). The DC attends the PIC to ensure the curriculum meets the Army’s needs. The DC also attends the CDR to assure the curriculum is relevant to the needs of the Army and provide vision to address the future needs of the professional military education (PME) in leader development. The DC approves all TLO’s.

c. DOA. As the chief academic officer, the DOA has overall responsibility for ensuring horizontal and vertical integration of all educational programs. The DOA uses the PIC to determine if learning outcomes were met and offers suggestions for curriculum change if needed. The DOA also ensures all programs comply with Army PME requirements and if applicable, Joint Professional Military Education (JPME) requirements. The DOA is the approval authority for learning outcomes and signs the MEP.

d. QAO. The QAO has the following responsibilities:

(1) Collaborates with schools to produce the MEP to submit to TRADOC no later than 1 September for the upcoming academic year.

(2) Collaborates with the schools to evaluate achievement of learning outcomes and objectives by collecting data through internal and external surveys, formative evaluations, curriculum reviews, classroom observations, and focus groups. Analyzes collected data and provides summarized results to the proponent. Supports the PIC and CDR processes by coordinating with proponent.

(3) Provides guidance and assistance for program evaluations per the MEP schedule.

(4) Ensures program evaluation documentation is archived in the Combined Arms Research Library (CARL).

e. Faculty and Staff Development (FSD). The FSD is responsible for the following:

(1) Gathers information to improve and enhance faculty development courses and determines professional development opportunities.

(2) Educates curriculum developers concerning the AIS process during the Faculty Development Instructor's Course and the Faculty Development Developer's course.

(3) Provides curriculum development assistance.

f. Directors. The AIS process requires school directors to play a key role in curriculum planning and development. To accomplish this, directors—

(1) Develop the learning outcomes based on research of the needs of the stakeholders.

(2) Require curriculum developers attend FDP3 before being assigned curriculum development duties and responsibilities.

(3) Ensure the AIS is used in curriculum development.

(4) Document results from mini-PICs prior to PICs where faculty, curriculum developers, and administrators meet to discuss direct and indirect assessment of student learning results. Produce a memo identifying:

(a) Who participated;

(b) What assessment of learning results were analyzed; and

(c) What evidence-based recommendations were identified for discussion during the upcoming PIC? Schools include this memo in PIC read-ahead material, and file a copy with all associated assessment data in a SharePoint or Blackboard archive developed and maintained by the School. These materials are important evidence for Joint and Higher Learning Commission (HLC) accreditors.

(5) Assign the following responsibilities to designated curriculum personnel.

(a) Coordinate and advertise the PIC (see Annex A for clarification).

(b) Conduct preliminary, rehearsal PICs as required.

(c) Present curriculum in the CDR (see Annex B for clarification).

(d) Ensure the program evaluation PICs as designated by the MEP follow the guidance in Annex A.

(e) Upon completion of an annual AIS cycle, write a memorandum capturing guidance received and decisions reached during PIC(s) and CDR. Email a .pdf copy of this memo and PIC/CDR meeting slides to the director of CGSCs QAO, CGSC Accreditation Office, and to the CARL archivist.

(f) Review and crosswalk curricula to ensure programs support mission and desired learning outcomes.

(g) Coordinate with the Accreditation Coordination Division to crosswalk the curricula to ensure support and integration of Joint Learning Areas and Objectives and Special Areas of emphasis per the OPMEP.

g. Curriculum Developers/Course Authors. They have the following responsibilities:

(1) Attend FDP3 (Course Author Course) to learn the AIS process and current instructional design practices.

(2) Based on guidance from the leadership, develop educational programs in accordance with the AIS that support mission, educational philosophy, and learning outcomes.

9. PROPONENT. Submit questions, comments or recommended changes to this bulletin to Director, QAO, CGSC, Lewis and Clark Center, Room 4539, 100 Stimson Avenue, Ft. Leavenworth, Kansas, 66027, (913) 684-2029.



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Dean of Academics

ANNEX A**Post Instruction Conference (PIC)**

1. The School prepares the PIC and announces it to the entire institution.
2. Mini-PIC Responsibilities. Document results from department and/or school meetings prior to Post-Instructional Conferences where faculty, curriculum developers, and administrators meet to discuss direct and indirect assessment of student learning results.
 - a. After mini-PIC meeting(s), produce a memo identifying: (1) Course, meeting date(s) and participants; (2) What assessment of learning results were analyzed; and (3) What evidence-based recommendations were identified for discussion during the upcoming PIC.
 - b. Schools include this memo in PIC read-ahead material; and
 - c. File a copy with all associated assessment data in a SharePoint or Blackboard archive developed and maintained by the School. These materials are important evidence for Joint and HLC accreditors.
3. Program Evaluation PIC Presentation. The following content encompasses the presentation to the school leadership and DOA:
 - a. Purpose of the course and goals of the program evaluation from the Program Evaluation Plan per the MEP.
 - b. Analysis. Explain how the course links to the educational outcomes. Include applicable analysis phase data, i.e., target audience, faculty, resources, JPME learning objectives, professional competencies, etc.
 - c. Design. Present TLOs that link to learning outcomes. Also present the assessment plan and lesson sequence. Include applicable design phase data, i.e., resource challenges, etc.
 - d. Development. Present assessment tools with linkage to learning objectives. Provide examples of rubrics. Present evaluation tools for the program and the reason for use (Why a focus group, interview, etc.)
 - e. Implementation. Present faculty “train-up” results. Include any faculty shortfalls in terms of experience, relevance to professional competencies, relevancy of experiences, subject matter expertise, etc. Relate faculty capability to requirements of the program. Present student assessment data, including data collected from evaluation tools.

f. Evaluation. Present analysis of additional data collected, i.e., external curriculum reviews, and recommendations grounded in data.

g. Guidance.

4. The School is responsible for posting presentations at least three days prior to PIC.

5. Program Evaluation Post PIC Memorandum for Record (MFR). The School is responsible for producing an MFR about the results of the PIC and archive the EXSUM, PIC presentation, and MFR in the CARL.

ANNEX B

CDR

1. Following the PIC, the schools analyze PIC results to adjust curriculum.
2. The schools present the CDR to the CMDT, DC, and DOA. The schools invite the Commandant and/or DC if available. The schools announce the CDR to the entire institution.
3. The CDR is the approval process. For established curriculum, conduct the CDR in a timely fashion following the PIC. For new curriculum, conduct the CDR to obtain approval for the new course.
4. Information presented at the CDR includes the following:
 - a. Learning outcomes.
 - b. TLOs showing linkage to the learning outcomes.
 - c. Linkages between the TLOs and Assessment Plan.
 - d. Assessment Plan (show assessment instruments, rubrics, samples of feedback to students, examples of student portfolios as appropriate, etc.)
 - e. Other curriculum-related decision points such as course flow, needs analysis of stakeholders as a result of research developed by the school, etc.
 - f. Faculty requirements.
5. The senior College official at the CDR approves the major changes to curriculum and the learning outcomes.

ANNEX C

Glossary

Assessment of Student Learning. Process of documenting the student achievement of the learning objectives. Assessment is defined in measurable terms gathered using rubrics, classroom assessment techniques, examinations, etc.

<p>Direct assessment gathers and analyzes data from learners' behavior tied directly to outcomes/TLOs/ELOs. It seeks demonstrable evidence that Soldiers and Civilians achieved the learning objective.</p>	<p>Indirect assessment collects and analyzes perceptions about mastery of learning outcomes. These perceptions may be self-reported or made by others. Surveys and interviews are common forms of indirect assessment.</p>
<ul style="list-style-type: none"> • Examinations (where questions correlate to specific LOs) • Papers, projects or exercises graded with a rubric, where elements of the rubric correlate to specific LOs) • e-Portfolios/portfolio evaluation 	<ul style="list-style-type: none"> • End-of-course student surveys • Focus groups • Graduate surveys • Employer surveys
<p>Both HLC and CJCS's Program for the Accreditation of Joint Education emphasize using a blend of direct and indirect measures to assess students' learning.</p> <p>Effective course-level direct and indirect assessment of student learning: (a) assures leaders that established learning objectives are being met; and (b) ensures that decisions within CGSC's AIS leading to curricular change and program improvement are evidence-based and data-informed.</p>	

Course. A discrete body of related lessons arranged in a prescribed form.

Course Author. Designs the courses and coordinates with the lesson authors, other course authors, and other teaching departments/schools to establish the relationship to other courses within the institution and the Army. This prevents unnecessary duplication of course materials and ensures both horizontal and vertical alignment. The course author must be a graduate of FDP3.

Curriculum Developer. Anyone who has completed FDP3 and develops curriculum.

Evaluation. A systematic formalized process of gathering and analyzing data (usually both qualitative and quantitative) to determine the merit, worth, and significance of the program. Program evaluation determines whether the course supports the learning outcomes.

Internal evaluation is a continuous process used for maintaining and improving educational programs. The focus of internal evaluation is to determine how effectively

the courses/lessons achieve learning objectives. An internal evaluation solicits feedback from students and faculty identifying course/lesson strengths and weaknesses. Tools for conducting internal evaluations include after action reviews, surveys, focus groups, observations, and curriculum reviews.

External surveys provide feedback from graduates and their supervisors. The purpose of external surveys is to evaluate how well the program meets the Army's needs. Additionally, external surveys provide data to curriculum developers regarding transfer of student learning to their jobs. Tools for conducting external evaluations include surveys, focused interviews, and site visits.

Formative Evaluation is ongoing throughout each AIS phase. It involves making adjustments during the course/lesson development process. The formative evaluation process enables improvement to the course or lesson before and during implementation.

FDP1. Entry-level course for new instructors. New faculty member is introduced to the foundation of CGSC educational philosophy. FDP1 uses small group instruction (SGI) to model teaching methods that provide classroom experiences based on adult learning principles, the CGSC Experiential Learning Model (ELM), Learning Style Theory, and adult learning environments. FDP1 is required prior to teaching in LD&E.

FDP3. The required instruction for lesson or course authors. In FDP3, the authors learn how to use the AIS—an ADDIE process to write and revise courseware and manage change in a learning organization. A senior educator facilitates FDP3. Completion of FDP1 and a minimum of six months teaching experience is a prerequisite to FDP3. This prerequisite requirement is based on the imperative that lesson and course authors use the knowledge they gain in FDP1 and actual content teaching experience. This enables them to develop interactive lessons and courses to achieve optimum student learning in an adult collaborative environment.

Learning Outcomes Alignment. Verifying learning outcomes alignment is an important part of the Analysis Phase in ADDIE. Outcomes alignment enables a school to assert that ELO/TLO mastery also demonstrates achievement of higher order learning outcomes. Army, Joint, and civilian accreditor(s) analyze learning outcomes alignment during (re-)accreditation visits.

Lesson. A structured period of time designed to teach a particular subject or activity within a course.

Lesson Author. Writes lesson plans, designed to implement subject or activity. The lesson author must be a graduate of FDP3.

MEP. Planning document that defines the organization's program evaluation requirements for the current academic year (AY). It projects program evaluation requirements for the follow-on two years. It contains a program evaluation plan for

each program receiving an evaluation during the current AY.

Objectives. Primary building blocks of curriculum design. They support the learning outcome in that each is a small step in arriving at what learners are supposed to know or be able to do for success in their profession.

OPMEP. Defines the Chairman of the Joint Chiefs of Staff objectives and policies regarding JPME. The OPMEP also identifies the fundamental responsibilities of the major military educational participants in achieving those objectives.

Outcomes. Definition of the expertise the students need in their profession. The organization writes learning outcomes based on research about the needs of the stakeholders.

Program. The integrated courses and other formally established learning objectives and experiences which constitute a particular body of study.

Program Evaluation. Program evaluation takes place at least every three years per the MEP. It shows the linkage among the learning outcomes, TLO, and student assessment. It presents both direct measures (assessment data) and indirect measures (survey data) of the success of the program. When available, program evaluations present the data from external surveys. Basically program evaluation provides information on the curriculum's ability to do what it was designed to do.

*This supersedes CGSC Bulletin No. 30, dated 11 August 2015