



Curriculum Background

GED programs throughout Massachusetts operate in myriad ways in regards to “cycles” and pre-determined lengths of time for student enrollment and completion of the GED. Because students enter programs with unique skill sets that range in applicable grade level equivalents, the development of a standard curriculum is difficult. This curriculum assumes that learners have been assessed formally at a GED level.

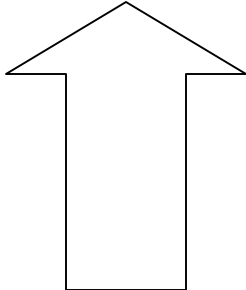
Curriculum and instruction align with the Massachusetts Adult and Community Learning Services’ Math and English Language Arts Curriculum Frameworks and work to contribute toward students’ progress toward their individual goals. Following the recommendation of the Massachusetts Department of Education’s Adult and Community Learning Services (2008),

- Students’ goals and objectives must be incorporated into the curriculum;
- Curricula must incorporate “authentic” real-life contexts that are responsive to the needs, goals, and interests of adult students in their roles as workers, family members, members of the community and lifelong learners;
- The curricula and associated materials must reflect the diverse educational, cultural, and linguistic backgrounds of the students served;
- A variety of tools and technologies must be used to support learning;
- Instructional methods must include interactive activities to engage a range of learning preferences;
- Instructional strategies including whole group, small group, and individualized instruction must be used to respond to the needs of the student population at diverse levels and with different learning styles. Strategies should also promote student team and student leadership skills.

GED Instruction and Cognitive Learning

Questions on the GED Tests are classified by cognitive level using an adaptation of Bloom’s *Taxonomy of Educational Objectives* (Benjamin Bloom, ed., 1st ed., New York: Longmans Green, 1956). Bloom identifies six levels in the cognitive domain:

Bloom's Taxonomy

	Evaluation	Judges the values of information
	Synthesis	Builds a pattern from diverse elements
	Analysis	Separates information into parts for better understanding
	Application	Applying knowledge to a new situation
	Comprehension	Understanding information
	Knowledge	Recall of data

Cognitive development is intrinsically linked to cognitive learning: formal operational thought signifies a young person's ability to think hypothetically and counterfactually. GED instruction aligns with Bloom's taxonomy as it represents clear alignment with formal operational thought.

Bloom's taxonomy is further reflected in the Core Concepts of the Massachusetts Adult and Community Learning Services English Language Arts and Math frameworks:

English language skills are an essential tool for social and economic success in American society. Adult educators help students develop and refine their reading, writing, oral communication and critical literacy skills. This allows students to **analyze, interpret**, and express ideas in ways that allow them to gain greater control over and more choices within their personal, academic, and working lives.

Adults develop numeracy skills and mathematical fluency through actions involving problem solving, reasoning, decision-making, communicating and connecting in curriculums that link to their own mathematics **knowledge, experiences, strategies and goals**. Fluency is enhanced by instruction that requires learners to strive for a constant interplay of accuracy, efficiency and flexibility in their work.

The Core Concepts are consistent with Eriksson's assertions that young adulthood is a period in which the individual must make commitments to ensure that the institutions of society will continue in the future.

Lorin Anderson and David Krathwohl (2000) revised Bloom's original taxonomy by combining both cognitive process and knowledge dimensions. It incorporates both the kind of knowledge to be learned and the process used to learn.

Anderson & Krathwohl

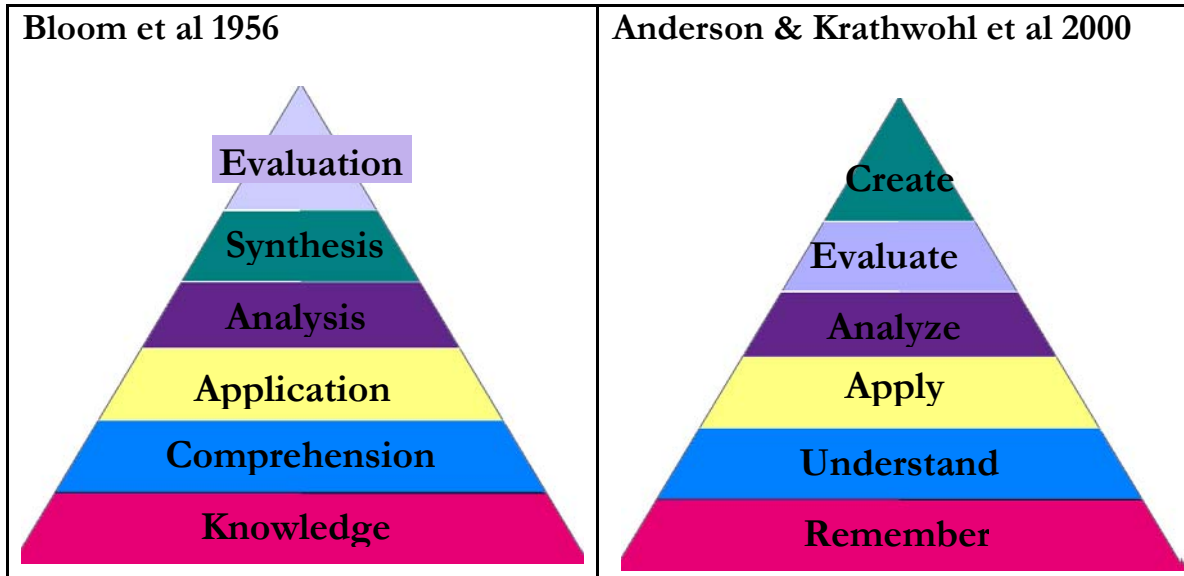
The Knowledge Dimension	The Cognitive Process Dimension					
	Remember	Understand	Apply	Analyze	Evaluate	Create
Factual Knowledge						
Conceptual Knowledge						
Procedural Knowledge						
Meta-cognitive Knowledge						

Anderson & Krathwohl list specific verbs that can be used when writing objectives:

Remember	Recognizing, Recalling
Understand	Interpreting, exemplifying, classifying, summarizing, inferring, comparing, explaining
Apply	Executing, implementing
Analyze	Differentiating, organizing attributing
Evaluate	Checking, critiquing
Create	Generating, planning, producing

Because GED test questions focus on a skills-based application, rather than a content-based knowledge of specific subjects, curriculum and instruction target higher-level cognitive processes. With youth, an interdisciplinary project-based approach achieves synthesis of information and allows for application of knowledge to real-life experiences and to learner interest. The goal of a GED curriculum that targets youth aims to incorporate the taxonomies of Bloom and Anderson & Krathwohl with Youth Development models that concentrate on the development of cognitive skills. The goal of this curriculum is to provide a model for learners to *create* their place in society based on their knowledge gained in the classroom.

Visual Comparison of the two taxonomies





Curriculum Design

This curriculum is project-based, learner-centered and designed with Youth Development strategies. It is interdisciplinary in its approach because it aims to teach youth the interconnectedness of subjects, synthesis of knowledge and applicability of information. Additionally, it offers suggested activities for targeting varied learning styles. This curriculum and suggested activities should be used as a guide and should be adapted for the needs of particular programs. It offers a basic outline and structure, with tested, model activities. The lesson plan format includes the required elements as required by the Massachusetts Department of Education for Adult and Community Learning Services-funded programs.

The curriculum is broken into a fifteen-week cycle, with a minimum of forty-five to sixty hours of classroom instruction. It may be adapted to be longer or shorter, based on the needs of a particular group of students or program. A fifteen-week rotation is a suggestion, not a requirement. Cycles or open-ended enrollment must meet the needs of specific learners. Knowing that many learners will transition into post-secondary education at a community college level, fifteen-weeks with a minimum of forty-five hours aligns with a typical three-credit college course. Curriculum design that reflects clear cycles and that utilizes formalized pre and post assessment provides learners with an entry point and a direction for an attainable goal toward improvement. As programs consider retention and transition strategies within program design elements, a fifteen-week curriculum promotes integrated projects with GED standards that link to assessment. When designed to meet the needs of learners, activities and assessment promote self-esteem and motivation to learn as youth experience measurable progress. This curriculum does not suggest that all learners will complete a fifteen-week cycle and pass the GED. Rather, it suggests that learners will have options to complete one or many cycles until they reach their goals. With that in mind, teachers are challenged to create new project-based approaches each cycle, while utilizing a general syllabus.

The following syllabus outlines a sample fifteen-week sequence and suggests the minimum amount of time to be dedicated to each subject:

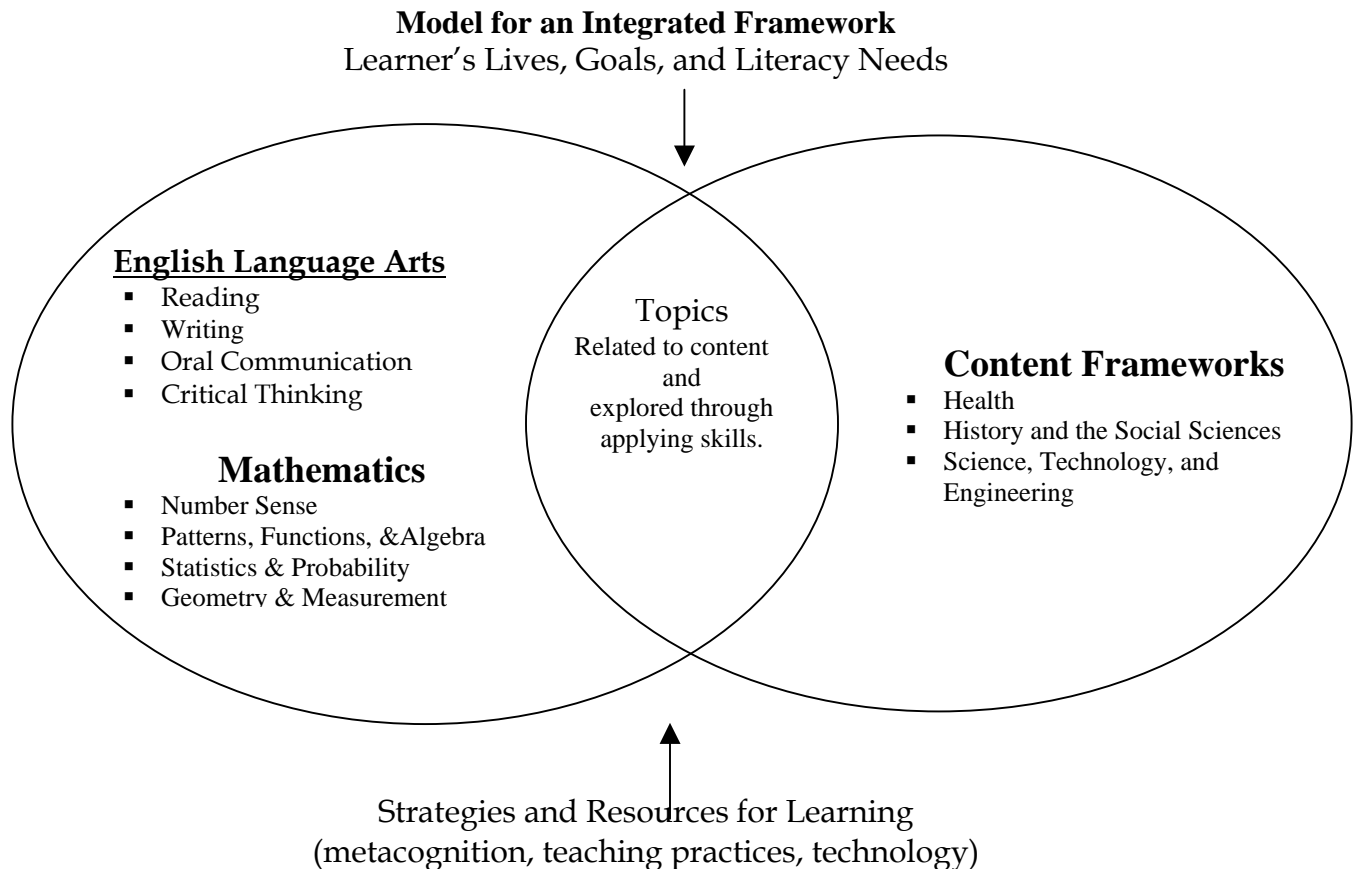
- Writing- 12 hours
- Integrated Social Studies, Science and Language Arts Reading- 30 hours
- Math- 25 hours
- Formalized Assessment- 5 hours

Pathways to Success by 21

Because the curriculum is multi-disciplinary and attempts to utilize an integrated model, writing, for example, is not confined to twelve hours of instruction. This curriculum assumes that writing is woven throughout the study of social studies, science and reading. On that same note, this curriculum assumes that math is woven through the study of social studies and science. Integrated curriculum is a method to break down barriers between subjects and make learning more meaningful. The idea is to teach around themes, or "organizing centers" that learners can identify with (Beane 13-14).

Integrated curriculum is an effective way to teach and learn because it corresponds with the way our brains work physiologically. Rather than separating knowledge into discrete partitions, the brain creates a complex web of information that recognizes patterns. Learning within a known context or experience helps the brain remember information more effectively (Caine 5). In fact, the physical structure of the brain changes as a result of experience, and it grows and develops more in an interactive environment (Caine 27-28). Integrating curriculum is a way to capitalize on these existing features of the human brain and work with, rather than counter to its natural function.

The Massachusetts Department of Education promotes an integrated framework for Adult Basic Education instruction. The English Language Arts Framework provides a model:





Sample 15-week Syllabus

(adapted from Yarnell 2003)

Required text: Any GED Preparation manual or series of workbooks.

Time commitment: A minimum of five hours per week of classroom instruction

Instructional methods

Individual work: Everyone comes to this class with a different educational and work background. Because of this, each member of the class has unique learning needs. In order to meet those individual needs, some time will be devoted to working on your own. During these times, I will be going around the room to work with each of you and answer your questions.

Small group work: Life does not happen in a vacuum. Humans are social creatures that learn with and from each other. Working in small groups introduces new ways of thinking and helps in the problem solving process. When appropriate, we will work in pairs or small groups.

Large group work: There is some information that everyone will need, and the most efficient way for that to happen will be in a large group (full class) setting.

Homework: You are required to complete a minimum of three hours of homework per week. Homework is designed to introduce you to common GED questions that relate to the material covered in class. We will review homework each day to check for clarity.

Week 1	Course Introduction Pre-Assessment Language Arts, Writing: Essay Introduction & Body
Week 2	Overview of GED Scoring Requirements Language Arts, Writing: Essay Body & Conclusion
Week 3	Language Arts, Writing: Grammar Language Arts, Writing: Essay Review

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Week 4 & 5	Social Studies
Week 6 & 7	Science
Week 8 & 9	Language Arts, Reading
Week 10 & 11	Math: Calculator usage Math: Numbers and Operations, Fractions, Decimals, Percents <i>OR EMPOWER™ Math</i>
Week 12 & 13	Math: Measurement and Data Analysis Math: Algebra <i>OR EMPOWER™ Math</i>
Week 14	Math: Geometry General Review <i>OR EMPOWER™ Math</i>
Week 15	Post-assessment