

Friends University

Clerestory Learning Professional Development Series: **The Architecture of Learning Basic Course**

Credits

3 Graduate Credits

Course Description

The Architecture of Learning Course explores instructional design by examining one model in depth. Neurocognitive research reveals findings about how the brain learns. The Architecture of Learning instructional design model draws upon those findings, and provides a strategic process for developing instruction.

Rationale

Authentic learning produces understanding and enables transfer. Effective teaching moves learners from knowing the details of content or skills to understanding how they fit together so that intentional application can be made.

However, not all learning involves the same cognitive processes. Identifying what is being taught should influence the choice of instructional methods.

Architecture of Learning enables teachers to identify the type of subject matter they are teaching (content, skill, combination), identify the underlying patterns that support that subject matter, develop instruction that engages mental processes appropriate for developing understanding, identify the form and content of appropriate assessments, and teach with an emphasis on understanding, utility, and integration.

Intended Audience

Educators at all levels and disciplines.

Instructor Information

Kevin D. Washburn holds an Ed.D. in Educational Leadership with an emphasis in Instruction and Curriculum, an M.A. in Elementary Education, a B.S. in English, and a B.S. in Elementary Education. His experience as a teacher in elementary through college level classrooms and leadership positions in curriculum and instruction combine with his penchant for reading and research in both educational and scientific areas to uncover important implications for learning. He is the creator of the Architecture of Learning instructional design model and author of its training program, which he has used with hundreds of teachers now implementing the model. Dr. Washburn is also the co-author of Foundations & Frameworks, an instructional reading program used by schools across the country, and the creator of the Writer's Stylus instructional writing program and the lead author of all its training and instructional materials. He is a member of the International Mind, Brain & Education Society and the Learning & the Brain Society.

Prerequisites

An acceptable undergraduate degree (e.g., a bachelor's degree in education) that would qualify the student for entry into a graduate education program.

See Assignments for pre-course reading prerequisites.

Learning Goals

Knowledge of:

- the nature of instructional design and the role/use of instructional design models
- the core processes of learning: experience, comprehension, elaboration, and application
- how focus determines transformations, and how these transformations combine to construct new learning
- subject matter types and the characteristics of each: content, skill, and combination
- how different instructional design models can be complementary
- the characteristics of effective instructive feedback
- the stages of a research-based instructive feedback cycle

Understandings:

- the relationship of learning's core processes to the structure and function of working memory
- the relationship of subject matter type to selection of focus processes and instructional strategies
- the relationship of pattern recognition to cognitive processing and learning
- the relationship of learning to teaching to assessment
- the relationship of formative assessment (i.e., instructive feedback) to student learning and achievement
- the relationship of modeling in skill instruction to findings from neurocognitive research on how the brain learns
- the relationship of the "critical intersections" of an Architecture of Learning Blueprint to instructional completeness
- the relationship of the "critical intersections" of an Architecture of Learning Blueprint to types of learning and forms of assessment
- the relationship of learning, teaching, and assessment alignment to integrity

Applications:

- use of a single instructional activity, restructured to address specific points in constructing new learning
- classification of subject matter types based on what is really being taught rather than just on topic identification
- sequence instructional strategies according to focus and core process relationships
- present thorough skill instruction, including skill definition and steps, modeling skill use, student sorting and labeling of skill steps, and initial guided practice with feedback
- develop complete Blueprints for instruction, both collaboratively and individually, based on subject matter type and understanding how the brain learns
- use a formative feedback cycle to deepen student learning
- develop assessments that align with instruction based on learning, including material's knowledge, understanding, and utility components
- use of tools, such as descriptive rubrics, in instruction, feedback, and summative assessment

Course Design

	PART 1 Learning's Core Processes & Transformations	PART 2: Architecture of Learning Blueprints	PART 3: Teaching, Learning, & Assessment
Pre-Segment Assignment	Summaries (3-5 sentences each) of <i>The Architecture of Learning: Designing Instruction for the Learning Brain</i> : Chapters 1-2. (See Moodle for details and submission instructions.)	Summaries (3-5 sentences each) of <i>The Architecture of Learning: Designing Instruction for the Learning Brain</i> : Chapters 3-5. (See Moodle for details and submission instructions.)	Summaries (3-5 sentences each) of <i>The Architecture of Learning: Designing Instruction for the Learning Brain</i> : Chapter 6. (See Moodle for details and submission instructions.)
Class (Video) Sessions	<ul style="list-style-type: none"> • Course Introduction • Core Process: experience • Core Processes: comprehension & elaboration • Core Process: application • Metaphor: core artist consortium • Transformation: experience to reference point • Transformation: date to knowledge • Transformation: knowledge to understanding • Transformation: understanding to utilization • Transformation: utility to integration 	<ul style="list-style-type: none"> • “Young Person’s Guide to the Orchestra: Fugue” • Subject Matter: content • Subject Matter: skill • Subject Matter: combination • Patterns • Patterns: content • Patterns: skill • Patterns: combination • Blueprints: EXperience strand • Blueprints: COMprehension strand • Blueprints: ELaboration & INTention strands • Blueprints: APplication & INTention strands • Blueprints: combination strands • AoL & UbD • Drafting Table Introduction 	<ul style="list-style-type: none"> • The nature of assessment • Instructive feedback • Architecture of Learning & Assessment • Rubrics • Rubrics and communicating achievement and increasing learning
Assignments	Various. See Moodle for sequence and details	<ul style="list-style-type: none"> • Various. See Moodle for sequence and details • Original unit development via the Architecture of Learning Drafting Table. See “Work Submission and Grading” for details. 	<ul style="list-style-type: none"> • Various. See Moodle for sequence and details • Unit assessment package development. See “Work Submission and Grading” for details.

Required Texts

The Architecture of Learning: Designing Instruction for the Learning Brain by Kevin D. Washburn, Ed.D. is mandatory for all participants.

This text is available from [Amazon](#) (paperback 9780984345908 and Kindle ASIN: B004M8S4MM), [Barnes & Noble](#) (Nook - BN ID: 2940012516503), and [Make Way for Books](#) (paperback 9780984345908).

Work Submission and Grading

Grades awarded will be *A, B, C, I, or F*. It is expected that ALL student work will reflect high standards and a high degree of effort on the part of the learner.

All post-class work must be submitted as directed below. Grading will be based on the following:

1. **Completion of all Assignments**, Discussion Board (Forum), and Quizzes via Moodle (30% of the final grade).
2. **Submission of an original**, complete unit plan (40% of the final grade). Specifically, all the following items should be submitted:
 - **An outline of the unit** and detailed plans for each activity in the unit (see examples in the File section of the course Moodle page). These should be written with the detail of a teacher's edition, as if the author were developing the unit so that someone who has never seen it before would know exactly what to do.

Both the outline and detailed explanation must be submitted via the Architecture of Learning Drafting Table online tool (<http://architectureoflearning.com/drafting-table>). Detailed plans for each activity should be typed right into the Blueprint cells and not submitted as separate documents. In the NOTES section at the top of the Blueprint, include the following: "Submitted for Graduate Credit," Your Name, Your E-mail Address. When the Blueprint is complete, click the SHARE button at the bottom of the page and type in the email address: kevin_washburn@friends.edu.

3. **Submission of an assessment package** to accompany the student's original unit plan (30% of the final grade). Specifically, the following items should be submitted:
 - **Appropriate assessment instruments**, including rubrics when appropriate, that have obvious connections to the critical intersections on the Architecture of Learning planning grid. See samples in the File section of the course Moodle page. Materials should be submitted via Moodle.

All submissions **must be original work, created and completed by the student**. All materials must be submitted **by 5:00 PM (central) on the course completion date**.

NOTE: Any work submitted **at least two weeks before the deadline** may be reviewed and resubmitted based on instructor feedback.

Submission Checklist

- All Assignments, Discussion Board Items (Forum), and Quizzes (see the course Moodle page).
- A complete and detailed Architecture of Learning unit, created in the Architecture of Learning Drafting Table online tool (<http://architectureoflearning.com/drafting-table>) and "shared" with the professor. (See details above.)
- Assessment package for the completed unit submitted via Moodle. (See details above.)

Course Policies

- **Participants must attend all class sessions** (i.e., watch all posted videos) and participate actively via all activities detailed on the course Moodle page
- **Participants must complete all assignments** and submit them as directed (see Work Submission & Grading)

Instructor Contact Information

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References

See exhaustive lists in course materials posted on Moodle.