Course Mapping for Designing Adaptive Learning in General Psychology

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Who we are

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What is your role on campus, and what comes to your mind when you hear Adaptive Learning?

- Faculty
- Staff
- Administrator
- Others

Diversity of Adaptive Learning Systems

What is adaptive learning?

> Adaptive learning, also known as adaptive teaching, is **an educational method which uses computer algorithms to orchestrate the interaction with the learner and deliver customized resources and learning activities to address the unique needs of each learner**. In professional learning contexts, individuals may "test out" of some training to ensure they engage with novel instruction. Computers adapt the presentation of educational material according to students' learning needs, as indicated by their responses to questions, tasks and experiences.
>
> Wikipedia, 2/8/2019

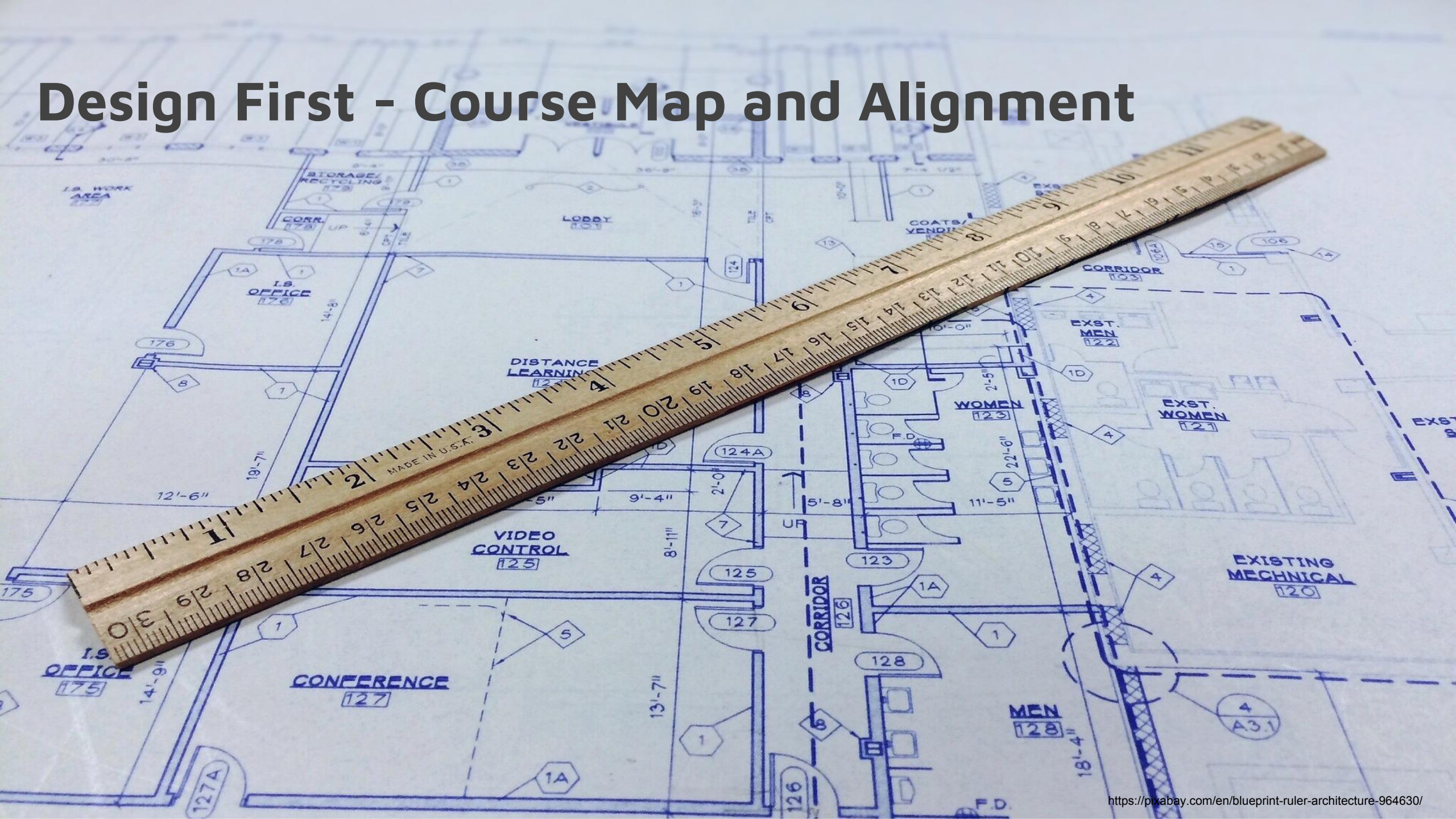
Wide range of adaptivity

- CogBooks
- RealizeIt
- Macmillan LaunchPad

Uniqueness of adaptive learning design

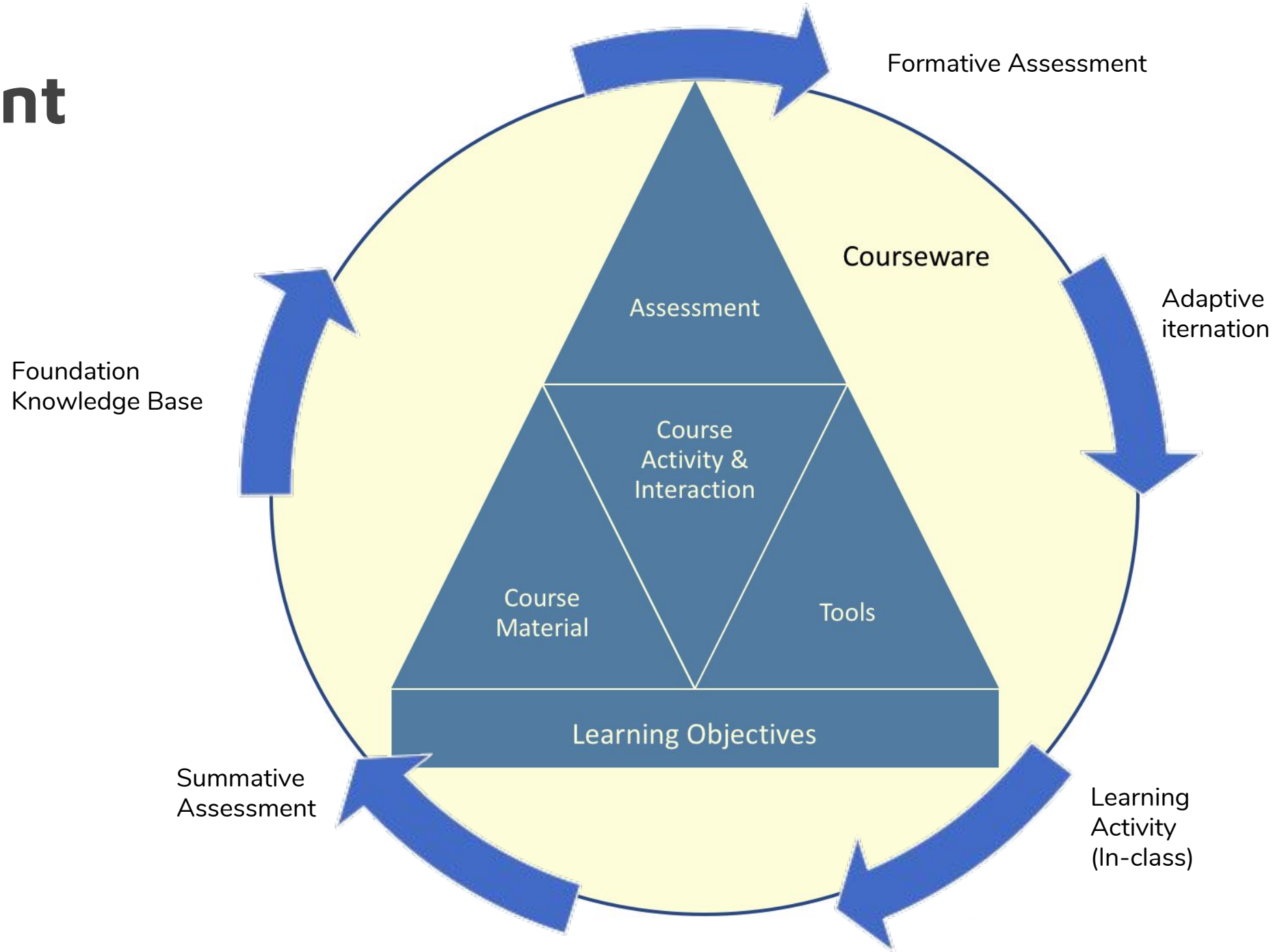
- Value: Personalized, mastery learning in large-enrollment courses
- System complexity
  - System as a “platform”– Learning curve and system training
  - Data analytics – Plan ahead the data use
- Team approach
  - Faculty team as a SME team, Vendor as a system expert, & Instructional designer for the support of…
- Design first – Course mapping and alignment
- Start small, reflect, and continuous improvement – Expectations

Design First - Course Map and Alignment



https://pixabay.com/en/blueprint-ruler-architecture-964630/

Alignment


Formative Assessment
Courseware
Adaptive
iternation
Foundation
Knowledge Base
Assessment
Course
Activity &
Interaction
Course
Material
Tools
Learning Objectives
Summative
Assessment
Learning
Activity
(In-class)

Our design experience: The course

PSYC 1101 General Psychology

Team of four faculty members

- QM Faculty Fellow lead the teaching team
- Review, analyze, and align course contents and instruction plan as SME
- Prepared detailed course map

Instructional Designer

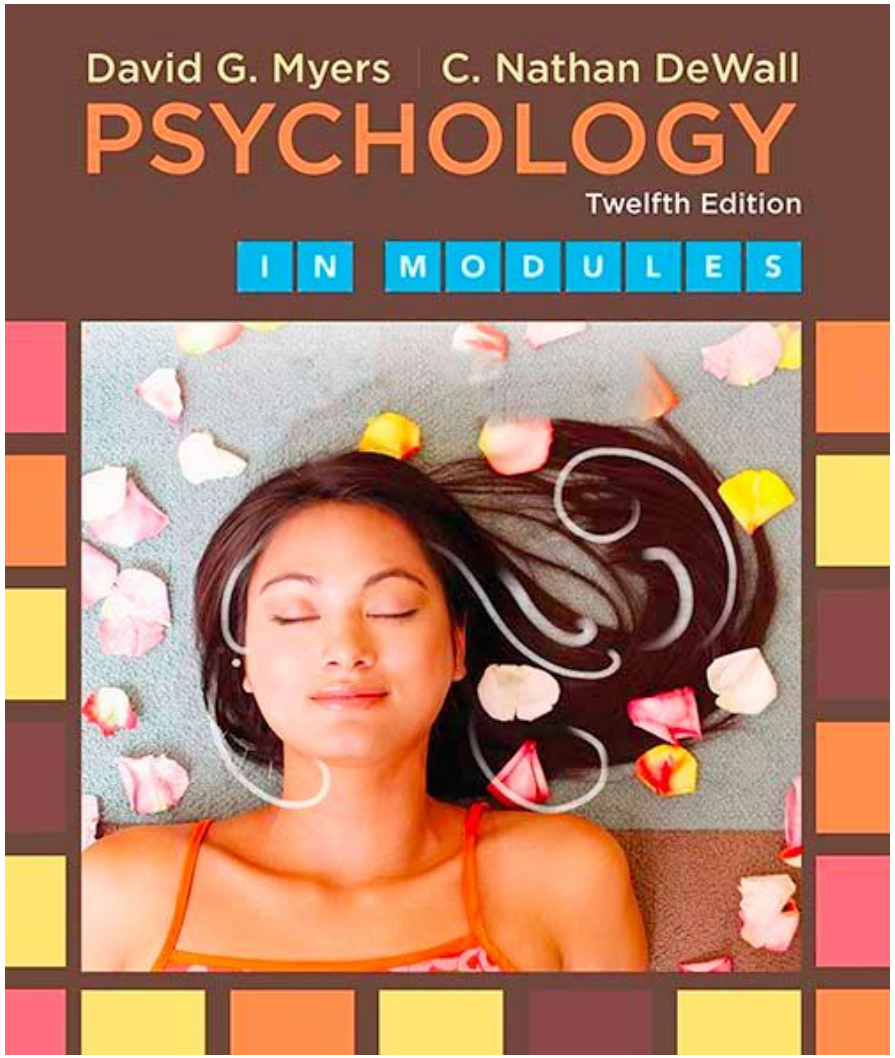
- ID consultation on course design
- LMS training / Courseware integration

Courseware Provider

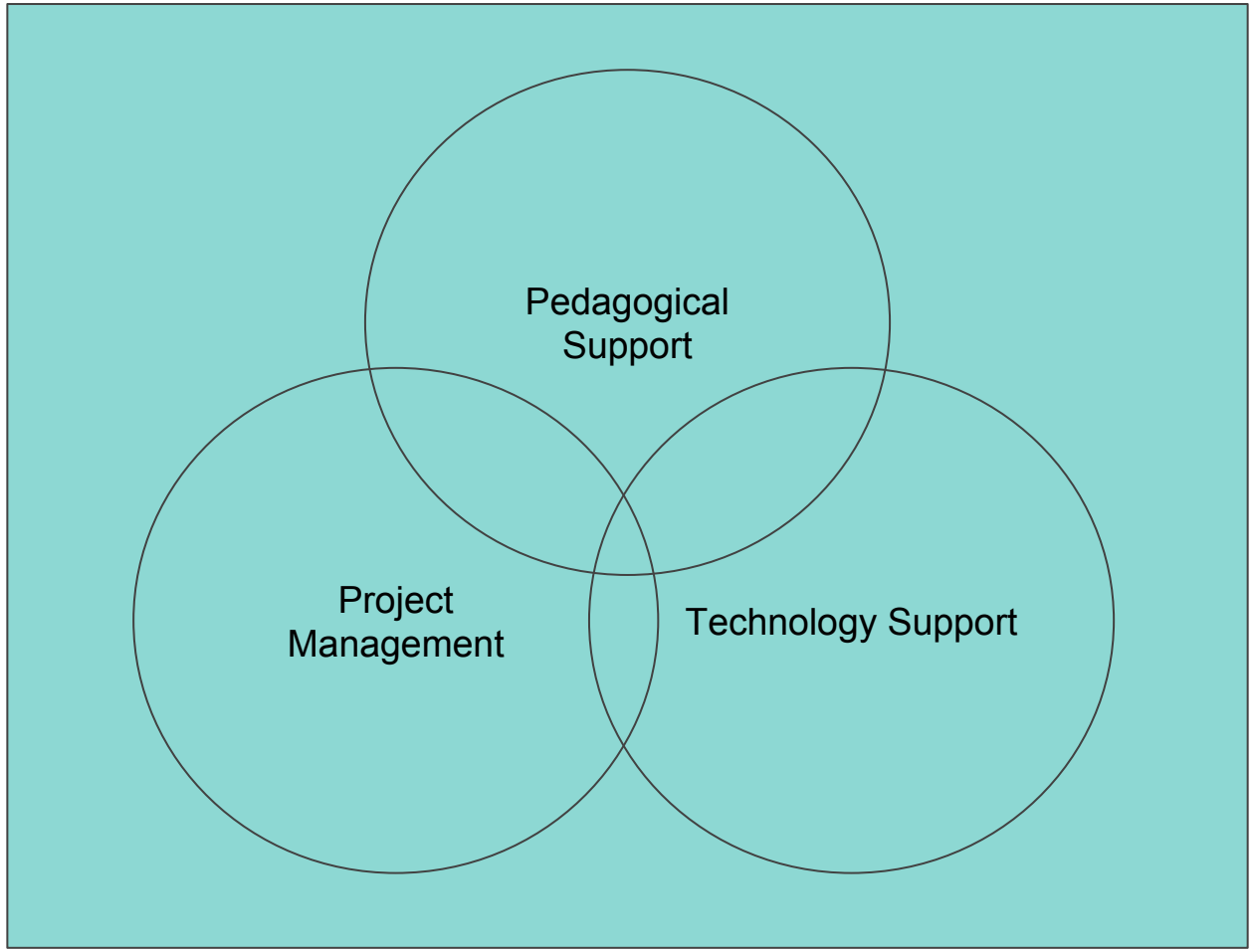
- Platform training
- Export analytics data

CTL Tech Team

- Integration of multiple technologies



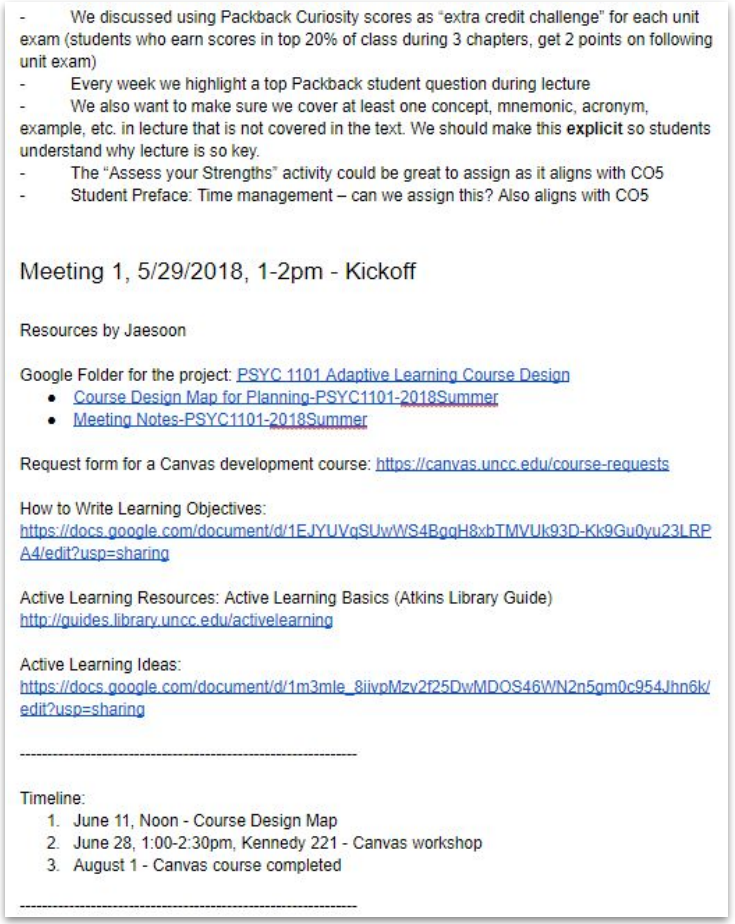
Instructional Design Support



Design support: Project Management

Support like a course development project

- Facilitate project meetings
  - Kickoff, Milestones, Completion, & Reflection
- Establish milestones and timeline
  - System training
  - Course design mapping
  - Canvas training & Canvas course development
- Facilitate team collaboration
  - Google folder - Resources and meeting notes
  - Canvas development course
  - Email



- We discussed using Packback Curiosity scores as "extra credit challenge" for each unit exam (students who earn scores in top 20% of class during 3 chapters, get 2 points on following unit exam)
- Every week we highlight a top Packback student question during lecture
- We also want to make sure we cover at least one concept, mnemonic, acronym, example, etc. in lecture that is not covered in the text. We should make this **explicit** so students understand why lecture is so key.
- The "Assess your Strengths" activity could be great to assign as it aligns with CO5
- Student Preface: Time management – can we assign this? Also aligns with CO5

Meeting 1, 5/29/2018, 1-2pm - Kickoff

Resources by Jaesoon

Google Folder for the project: PSYC 1101 Adaptive Learning Course Design
- Course Design Map for Planning-PSYC1101-2018Summer
- Meeting Notes-PSYC1101-2018Summer

Request form for a Canvas development course: https://canvas.uncc.edu/course-requests

How to Write Learning Objectives:
https://docs.google.com/document/d/1EJYUVqSUwWS4BgqH8xbTMVUk93D-Kk9Gu0yu23LRPA4/edit?usp=sharing

Active Learning Resources: Active Learning Basics (Atkins Library Guide)
http://guides.library.uncc.edu/activelearning

Active Learning Ideas:
https://docs.google.com/document/d/1m3mle_8iivpMzv2f25DwMDOS46WN2n5gm0c954Jhn6k/edit?usp=sharing

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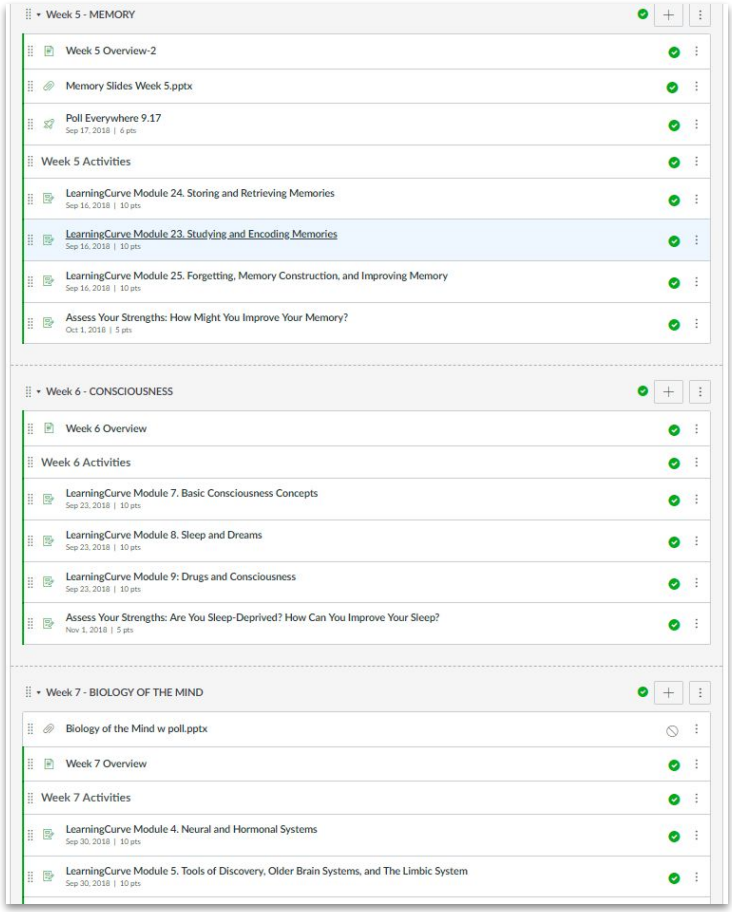
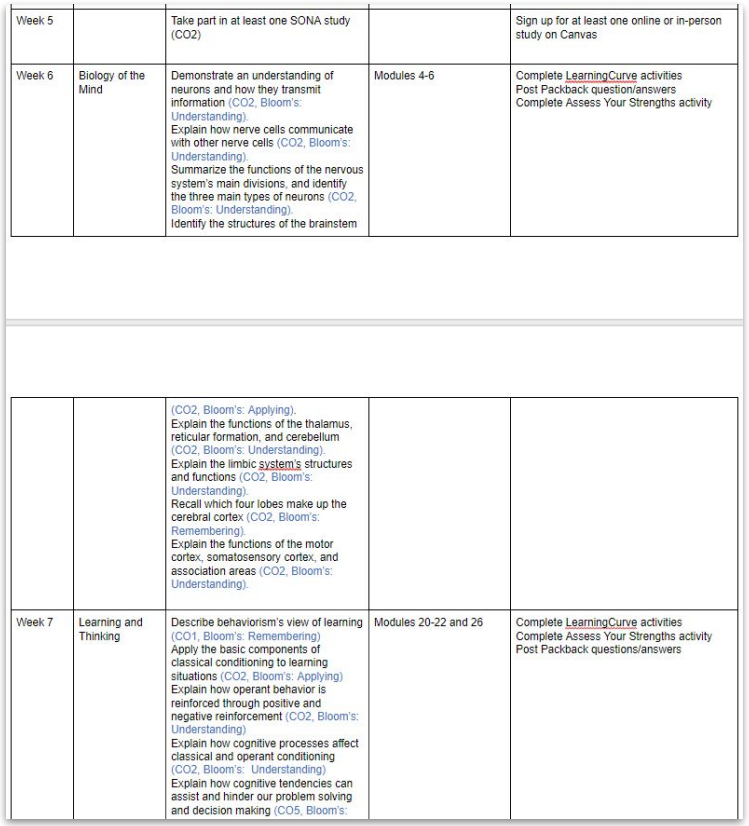
Timeline:
1. June 11, Noon - Course Design Map
2. June 28, 1:00-2:30pm, Kennedy 221 - Canvas workshop
3. August 1 - Canvas course completed

Design support: Pedagogical Support

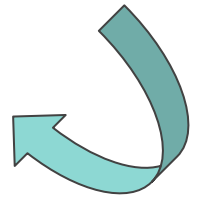
Support like a blended course design

- How to write learning objectives
- Active learning ideas
- How to do course mapping
- QM course design standards
- QM course template





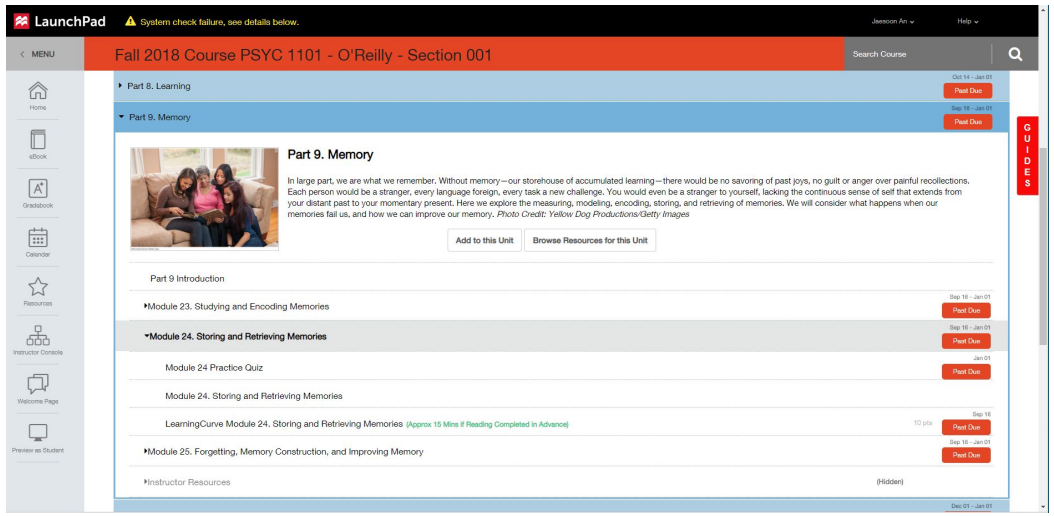
Week 5		Take part in at least one SONA study (CO2)		Sign up for at least one online or in-person study on Canvas
Week 6	Biology of the Mind	Demonstrate an understanding of neurons and how they transmit information (CO2, Bloom's: Understanding). Explain how nerve cells communicate with other nerve cells (CO2, Bloom's: Understanding). Summarize the functions of the nervous system's main divisions, and identify the three main types of neurons (CO2, Bloom's: Understanding). Identify the structures of the brainstem	Modules 4-6	Complete LearningCurve activities Post Packback question/answers Complete Assess Your Strengths activity
		(CO2, Bloom's: Applying). Explain the functions of the thalamus, reticular formation, and cerebellum (CO2, Bloom's: Understanding). Explain the limbic system's structures and functions (CO2, Bloom's: Understanding). Recall which four lobes make up the cerebral cortex (CO2, Bloom's: Remembering). Explain the functions of the motor cortex, somatosensory cortex, and association areas (CO2, Bloom's: Understanding).		
Week 7	Learning and Thinking	Describe behaviorism's view of learning (CO1, Bloom's: Remembering) Apply the basic components of classical conditioning to learning situations (CO2, Bloom's: Applying) Explain how operant behavior is reinforced through positive and negative reinforcement (CO2, Bloom's: Understanding) Explain how cognitive processes affect classical and operant conditioning (CO2, Bloom's: Understanding) Explain how cognitive tendencies can assist and hinder our problem solving and decision making (CO5, Bloom's:	Modules 20-22 and 26	Complete LearningCurve activities Complete Assess Your Strengths activity Post Packback questions/answers

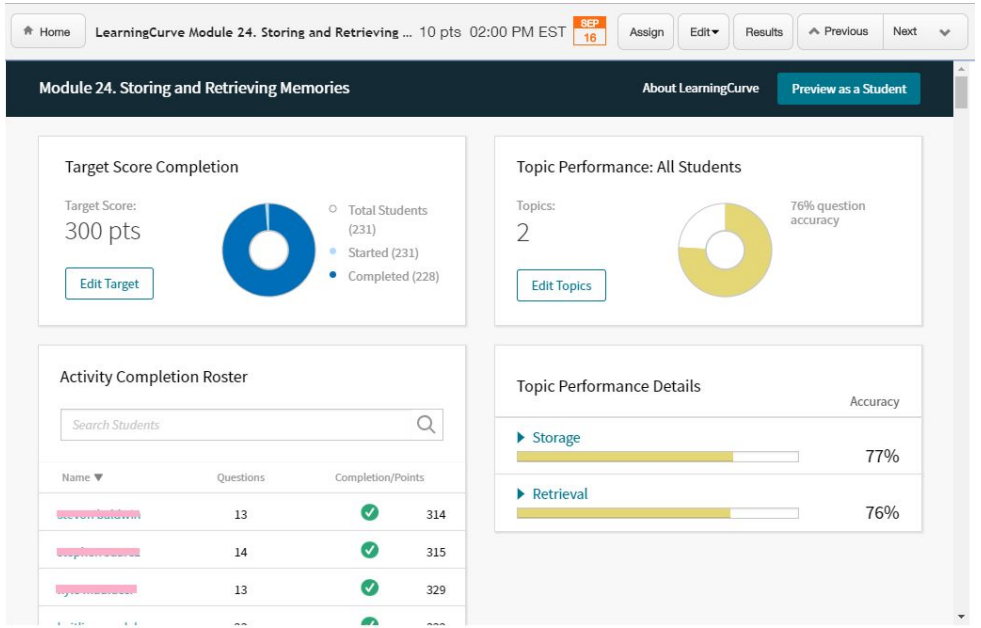


Design support: Technology Support

Support like a Courseware System Integration with LMS

- Feature overview by vendor
- Analytics feature overview by vendor
- Integration with Canvas by CTL and vendor
- Importing question banks by CTL
- Canvas training for course development by CTL






Q&A