



## Implementing Curricular Change & Generating Faculty Buy-In with Structured Resources

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Part I: In the beginning...or middle

Part II: Creating Shared Resources

Part III: Increasing Faculty Engagement

Part IV: Where we are now

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## Part I: In the beginning of 2017...

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...we landed at Emory and things  
were already underway:



• Liesl's Story

• Bill's Story

What's Your Story?

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We have learned that  
Emory Chemistry has  
new curriculum!



For more info about the development of Chemistry Unbound see:  
McGill, T.M. et al. *J. Chem. Educ.* **2019** 96, 35-46

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Chemistry Unbound to take down barriers between traditional chemistry disciplines to build lasting thematic frameworks and give students context for real-world problems and solutions.



**REDESIGNED CLASSES**

**Links Key Concepts**

**REAL-WORLD APPLICATIONS**

**Interactive Classes & Labs**

**THEMATIC FRAMEWORKS**

**ACTIVE LEARNING**

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But it doesn't follow a text book!



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## Part II: Supporting Resources Were Created

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### Master & Blueprint Canvas Sites

#### Course Design Best Practices:

- Overviews
- Modules
- Learning Objectives
- Shared Resources
  - Worksheets, videos (found and made), simulations, articles, text pages
- Linked to standards-based assessments\*

#### Curriculum & Dept Resources:

- Overview of Chemistry Unbound
- Info about undergraduate research
- Review modules as needed\*

\*Chem 150/202

<https://canvas.emory.edu/courses/37416>

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### How this works:

1

**Master sites created** by Liesl and faculty teaching the course

- Often a "lead" instructor is identified to organize this
- All faculty teaching that course should review the site 2-4 weeks before site launch



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### How this works:

2

Once the Master Site is finalized for the semester it's **copied into a Blueprint** site that is connected to the faculty's individual course sites

- "Blueprints" is a term in Canvas that links a master site to "children" sites – different than sections
- Allows instructors to share resources and make updates efficiently
- Able to send course-wide announcements



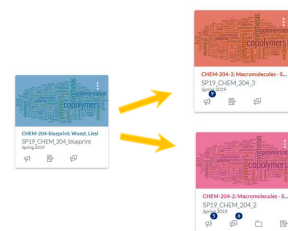
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### How this works:

3

**Blueprint is pushed out** to faculty Canvas sites at the start of the semester

- Nothing is locked in from the Blueprint
- Faculty can change anything in their own site\*
  - Language, links, order etc.
  - **\*They should not change the Learning Objectives** but they technically have access to do that
- If they make changes, they won't get overridden by a blueprint update



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## Expectations:

- I. Faculty must teach to the learning objectives and students should be given the learning objectives
- II. Faculty do not have to use the resources
  - Faculty that use the resources often work together each semester to refine them
- III. We are working towards common finals for all core courses

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## Why?

### Fidelity of Implementation

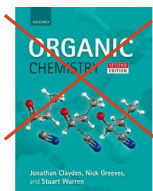
or in other words

They all should be teaching the same thing!

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## Consistency of what is being taught really matters!

Students can't fall back on a textbook to fill in the gaps because everything is taught and assessed in a different order



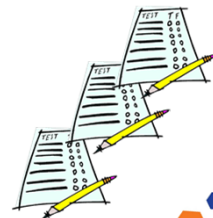
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## Consistency in Assessment

Common standards-based exams/finals for the core courses

Help ensure consistency in what is being taught and identify gaps

- All exam questions must link to class learning objectives
- Multiple faculty are involved in writing the questions and ensuring this happens
- It is not without its struggles!



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## Part III: Increased Faculty Engagement

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## We have to collaborate! (gasp!)

- Intra-disciplinary (organic, biological, physical, inorganic)
- Cohorts meet weekly/bi-weekly
  - Best teaching practices
  - Developing shared resources
  - Critically develop exam questions
- Mid-semester/end of semester meetings
  - 20+ faculty talking about the core courses
  - Content, flow, pedagogy

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## Onboarding New Instructors

- High quality materials already developed
- Not teaching in a silo
- Late/Summer teaching assignment changes shouldn't hurt students
- Best practices for Canvas use

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## Part IV: Where we are now

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### Chem 150/202

- Have run 3x
- Sites fully developed
- Faculty on board

### Chem 203/204

- Have run ~2x
- Sites have LOs, need more resources
- LOs still being modified

### Chem 205

- Has run 1x
- Site mostly developed\*
- \*faculty developing this site taught Chem 202 the year before so was familiar with the site structure and usefulness of resources

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And the upper-level courses...



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Questions?

Comments?

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