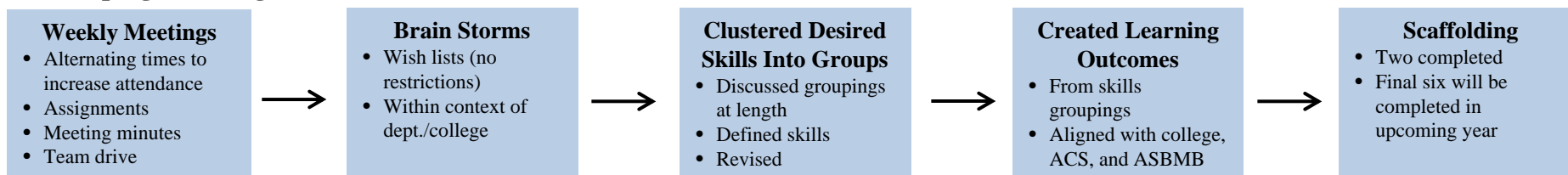
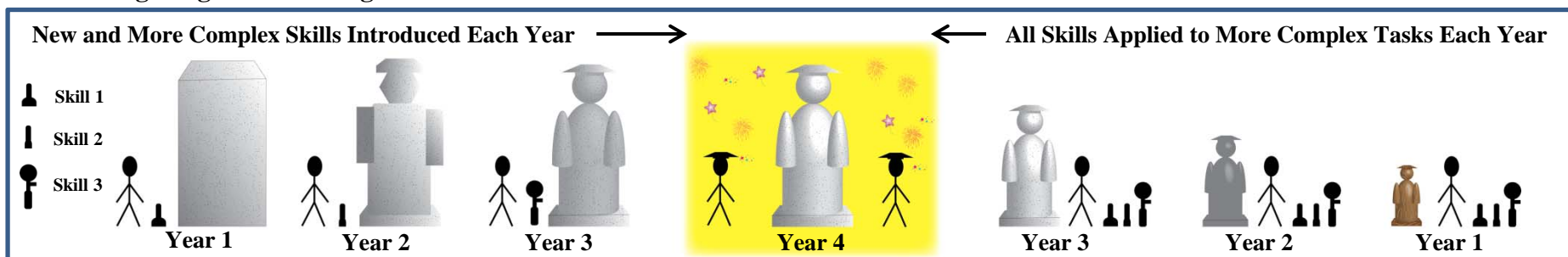




Developing Learning Outcomes



Scaffolding Program Learning Outcomes – Two Routes to the Polished Graduate



Professional Development Learning Outcome

At the completion of the major students will demonstrate proficiency in characteristics of a successful professional.

Course Modifications:

- New professional chemist skills curriculum in general chemistry
- Resumes/personal statements/cover letters in organic chemistry lab
- Upper division course components (research posters in biochemistry and alumni research Zoom sessions in physical chemistry)

Research Skills Learning Outcome

At the completion of the major students will understand and implement the stages of the research process.

Course Modifications:

- Upper division courses: Research rotations and uncoupled lab/lectures
- Research based inorganic lab
- Problem based general chemistry lab

Professional Development Skill Scaffolding Method		
Foundation Course	Intermediate Course	Capstone Experience(s)
Professional Development Skills 1 & 2		
	Professional Development Skills 3 & 4	
		Professional Development Skills 5 & 6

Keys to Our Successes

- Weekly meetings and good attendance
- Utilized practices that ensured all voices were heard and valued
- Google team drive
- Diverse, motivated, invested team members with differing strengths (ex: Chem Ed faculty member with background in assessment, big picture people, etc.)

Challenges

- Two majors: Two sets of requirements and course progressions
- College climate: General education changes and professional development requirement
- Faculty time: Hard to protect

	Research Skill Scaffolding Method			
	Foundation Course	Intermediate Course	Capstone (non-SMP)	Capstone (SMP)
Research Skill 1	Lower levels of Bloom	Low-Mid Levels of Bloom	Mid-High Levels of Bloom	Highest Levels of Bloom
Research Skill 2				
Research Skill 3				

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