

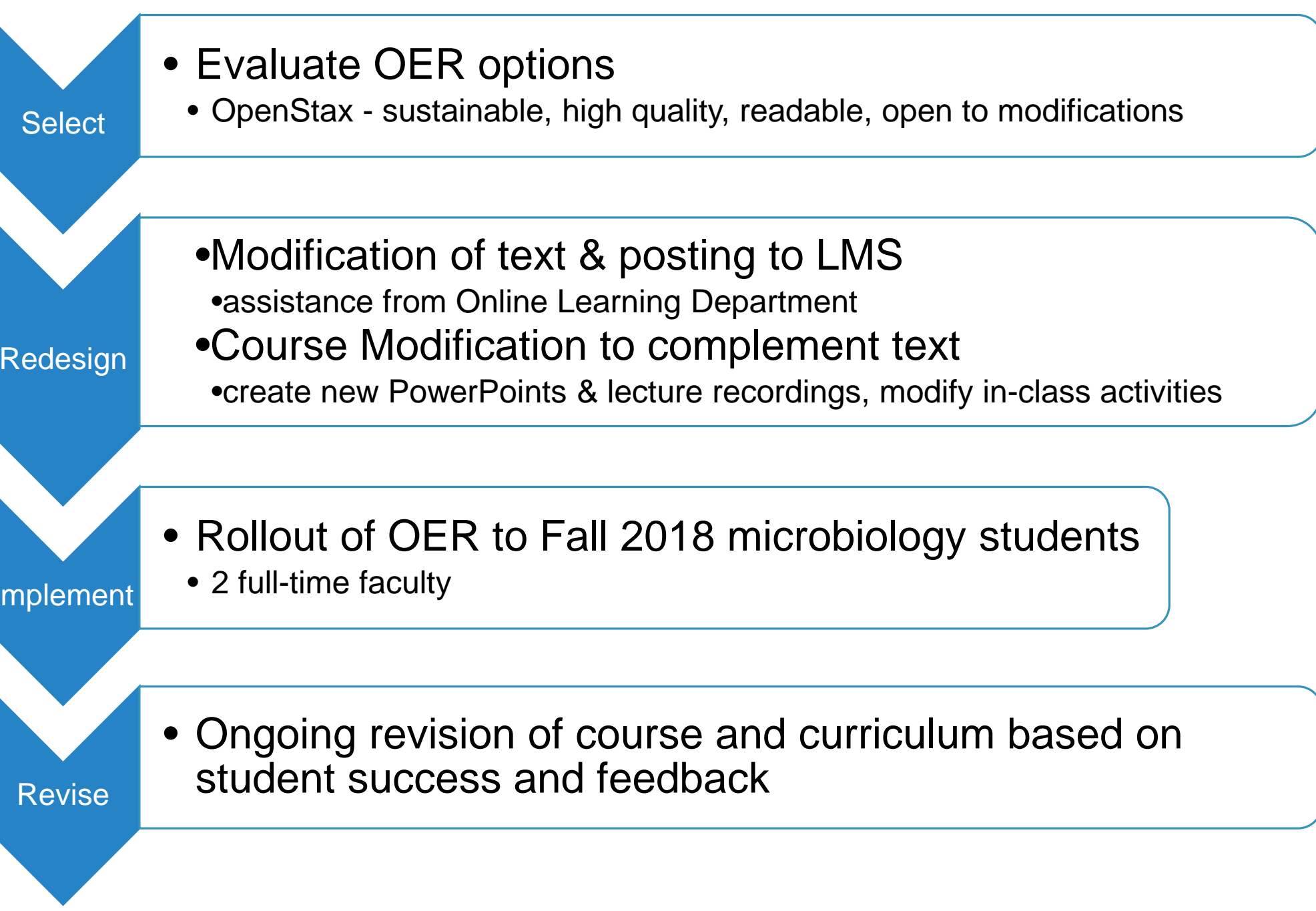
PROJECT BACKGROUND

Adopting OER for Biology 215 Microbiology

- Offering a low cost laboratory science course
 - Expand OER utilization to include microbiology lecture
 - Complement online lab manual currently in use
- Maintain instructional quality
 - Reliable source of content
 - Customize material for our active learning classroom



Path to OER Adoption



IMPACT

Cost of materials for Biology 215 Microbiology

- \$40 for lab materials* + free online text
- \$65 for lab materials* + print version of text
 - *lab materials: googles, lab coat, print version of lab manual

Traditional laboratory science courses cost \$200+

- Number of students impacted 2018-2019 Academic Year
 - 104 Face-to-face students across 6 sections
 - 24 Hybrid students across 2 sections
- Estimated savings per student each semester
 - \$125 Face-to-face
 - \$250 Hybrid
- Improved student satisfaction with materials
 - Publisher text
 - “The text was a waste of money.” “I never use the text.”
 - OER
 - “Lab manual, book, and website were fantastic!”
 - Over 75% responded course materials benefited their learning



LESSONS LEARNED

• Successes

- Students appreciated the low cost, high quality text
- Easy to transition from publisher based text to OER
- Digital and print versions of the text were available

• Challenges

- Students need reminders of how to learn
 - Direct them to available resources
 - online videos, modified & online versions of the text, etc.
 - Model study techniques
 - Students have a past reliance on publisher software
- Instructor created video
 - LMS generated subtitles were not always correct

Grades	Traditional text Fall 2017		OER Fall 2018	
	F2F	Hybrid	F2F	Hybrid
A, B, C	95%	100%	97%	85%
D, F, W*	5%	0%	3%	15%

* Withdraw after 9 weeks

FUTURE PLANS

Goal of Curriculum Design

- Constant revision to improve the student experience
 - Encourage student engagement with the OER
 - Active learning strategies for hybrid students
- Share findings with colleagues
 - Within the department
 - At local conferences

STUDENT COMMENTS

“Thank you for picking a low cost book.”
 “I really enjoy the OpenStax textbook”
 “I liked the fact that the text book and lab manual were online.”
 “The lab book for this course is PHENOMENAL.”
 “. . .videos on information reviewed during class were very helpful.”
 “Change the OpenStax book back to (publisher)!”