

Laboratory Quality Systems
Unit IV – Laboratory Management
Week 9 -10 Activities

Learning Objectives

- Understand the use of laboratory management principles including the adoption of a technology strategy and capital budgeting
- Understand the importance of implementing safety procedures and ensuring compliance with safety procedures in the laboratory

Presentations

Managing Laboratory Processes

- [Laboratory Management: An Overview](#) (10 min) | [PDF](#)
- [Technology Strategy](#) (16 min) | [PDF](#)
- [Benchmarking](#) (16 min.) | [PDF](#)
- [Capital Budgeting](#) (22 min) | [PDF](#)
- [Working Capital](#) (21 min) | [PDF](#) | [Working Capital Excel File](#)
- [Enterprise Budgeting](#) (6 min) | [PDF](#)
- [An Overview of the OTSC Lab Flexible Funding Model](#) (18 min.) | [PDF](#)
- [Texas Adoption of LFFM Grant Work – Presentation by Ms. Mary Sasser & Ms. Diamond Percival](#) (36 min.) | [PDF](#)

Excel Worksheets

- [Example Enterprise Budget File](#)
- [LFFM Capital Budget File](#)
- [LFFM Net Present Value Calculation Example](#)

Readings

Managing Laboratory Processes (OTSC Lab Flexible Funding Model)

- [Chapter 5: Technology and Competitive Advantage](#) (Porter 1985)

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- [Chapter 6: Making Investment Decisions with the Net Present Value Rule](#)
(Brealey & Meyers 2000)

- [OTSC LFFM Proposal –Skim](#)

References

- [Calculating Costs: How a LIMS-based cost recovery model can improve operational efficiencies and resource utilization](#)

- [The 2024 Spectroscopy Employment Survey: Continuing Economic Pressures, and How It Impacts Spectroscopists](#)

Safety Procedures in Laboratory

- [Strengthening a Culture of Laboratory Safety](#) by CDC (1 hr.)

- [Research Compliance: video presentation by Dr. Bruce Whitney](#) (24 min.)

- [Safety at the OTSC](#) by Ms. Emma Gorishek (6 min.)

Readings

Safety Procedures in Laboratory

- [Toolbox Talk: Safety Data Sheets from University of Missouri](#)

- [Lab Safety Matters](#) (Nature Methods 2010)

References

Safety Procedures in Laboratory

- [OTSC Lab Safety Manual](#)

Assignments

- [Homework 6 by Midnight on Monday, April 20, 2026 – 10 pts](#)
Submit via e-mail to outreach@otsc.tamu.edu

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- Graded Discussion # 6 on Monday April 20, 2026
Why should laboratories implement a continuous improvement program as part of their laboratory quality management system? What are some performance measures that can be used as benchmarks within a continuous improvement program?
Access google group @ [Laboratory Quality Systems – Spring 2026 - Google Groups](#)
E-mail: lqs_2026_spring@lists.tamu.edu