

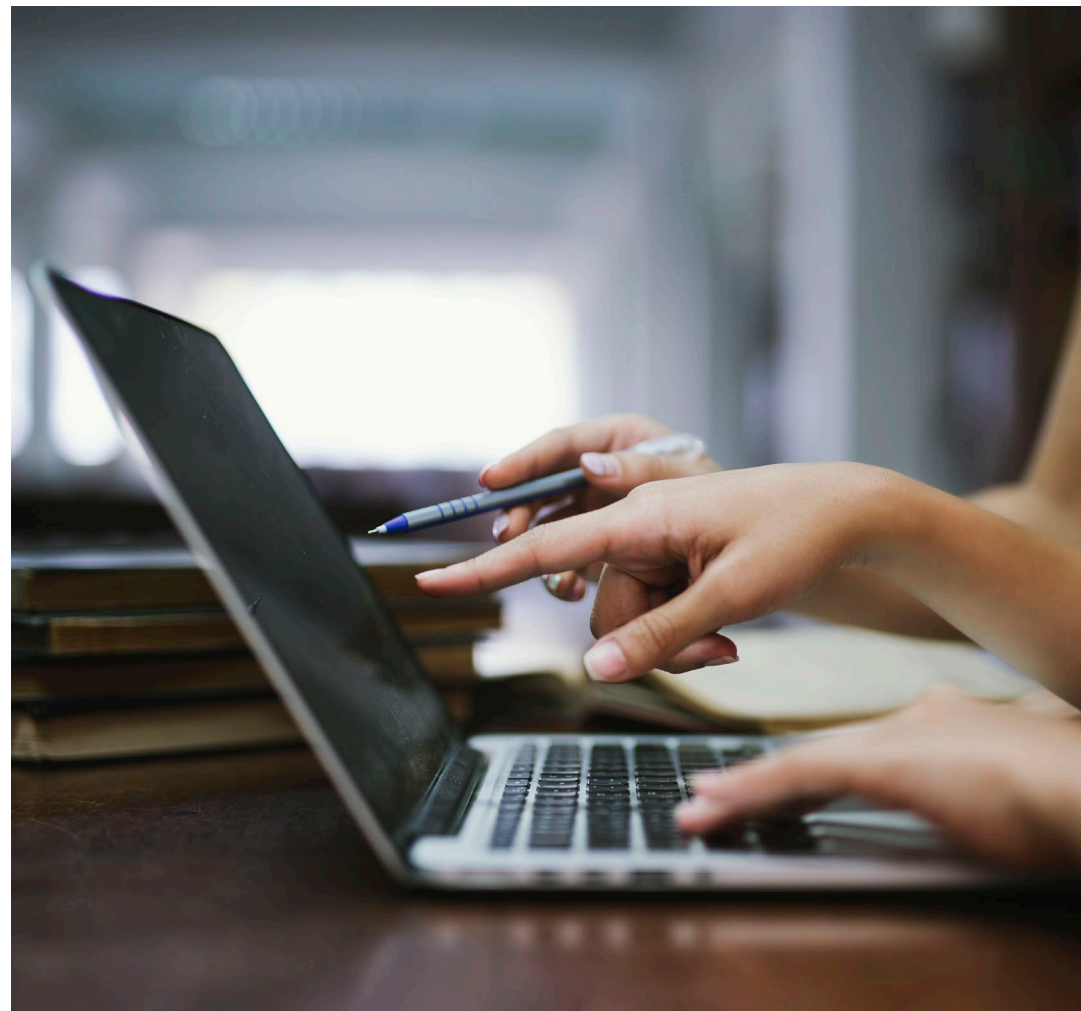
TEACHING EFFECTIVELY: INCREASING CLASS SIZES

BRING YOUR OWN CHAIR AND SOME USEFUL STRATEGIES

A SPARKSHOP BROUGHT TO YOU BY
YOUR OTEI FRIENDS
MIGUEL PÉREZ MONTORO

By the end of this session, we will have:

- Discussed research-based challenges of large class sizes
- Explored practical strategies to promote student engagement
- Identified strategies to consider during the course design phase
- **Learned we are not alone.**

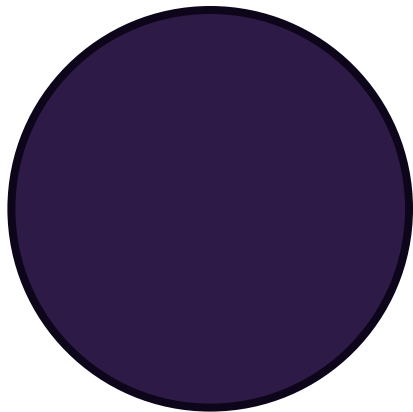


LET'S TALK CHALLENGES

WHAT HAPPENS WHEN CLASS SIZES INCREASE?

Challenges and Issues of Larger Classes

What are **challenges** you have found (or are finding) teaching in larger classrooms?



Challenges and Issues of Larger Classes

1. Limited opportunities for **individual student participation**.
2. Difficulty in **monitoring student understanding** in real time (formative assessment).
3. Increased risk of **student disengagement and distraction** (e.g., texting, shopping).
4. Challenges with **classroom management** and maintaining attention across a large space.
5. **Reduced interaction** between students and instructor, making it harder to build rapport.
6. **Accessibility issues** (visibility of slides, audibility, physical space constraints).
7. **Assessment and feedback** become more time-consuming and less personalized.
8. Risk of students feeling **anonymous or disconnected** from the learning community.

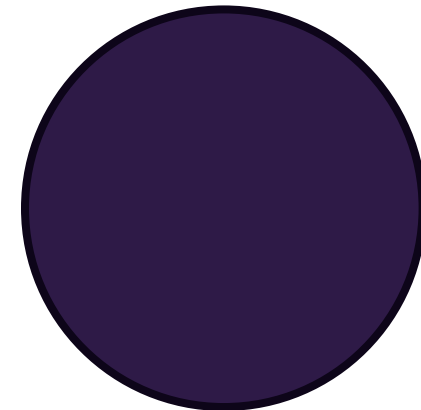
PROMOTING STUDENT ENGAGEMENT

STRATEGIES TO INCREASE PARTICIPATION

Increasing Engagement in Large Classes



What are ways in which you boost engagement in your larger classes?



Increasing Engagement in Large Classes

1. Use of **active learning techniques** (think-pair-share, clicker questions, polls).
2. **Frequent low-stakes assessments** to check understanding and keep students accountable.
3. **Interactive questioning strategies** (cold calling, warm calling, or random selection).
4. Incorporating **multimedia and real-world examples** to sustain attention.
5. **Movement and proximity**—instructor or TAs circulating to re-engage students at the back.
6. **Structured group work** within large lectures (pods, breakout discussions).
7. Embedding **formative feedback loops** (quick reflections, minute papers, peer feedback).
8. **Variety in instructional methods** to reset attention spans (lecture, activity, video, discussion).

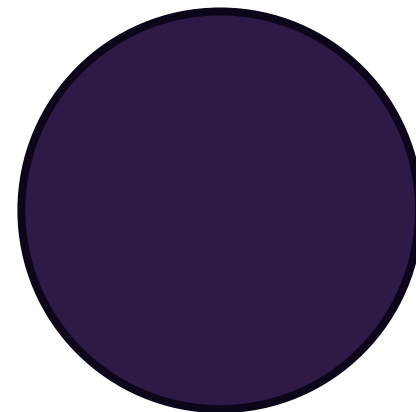
PREPARING COURSES FOR LARGER GROUPS

PLANNING FOR A SMOOTH SEMESTER

Pedagogical Decisions and Course Design for Large Classes



How is the **design** of your larger courses different from the smaller ones?



Pedagogical Decisions and Course Design for Large Classes

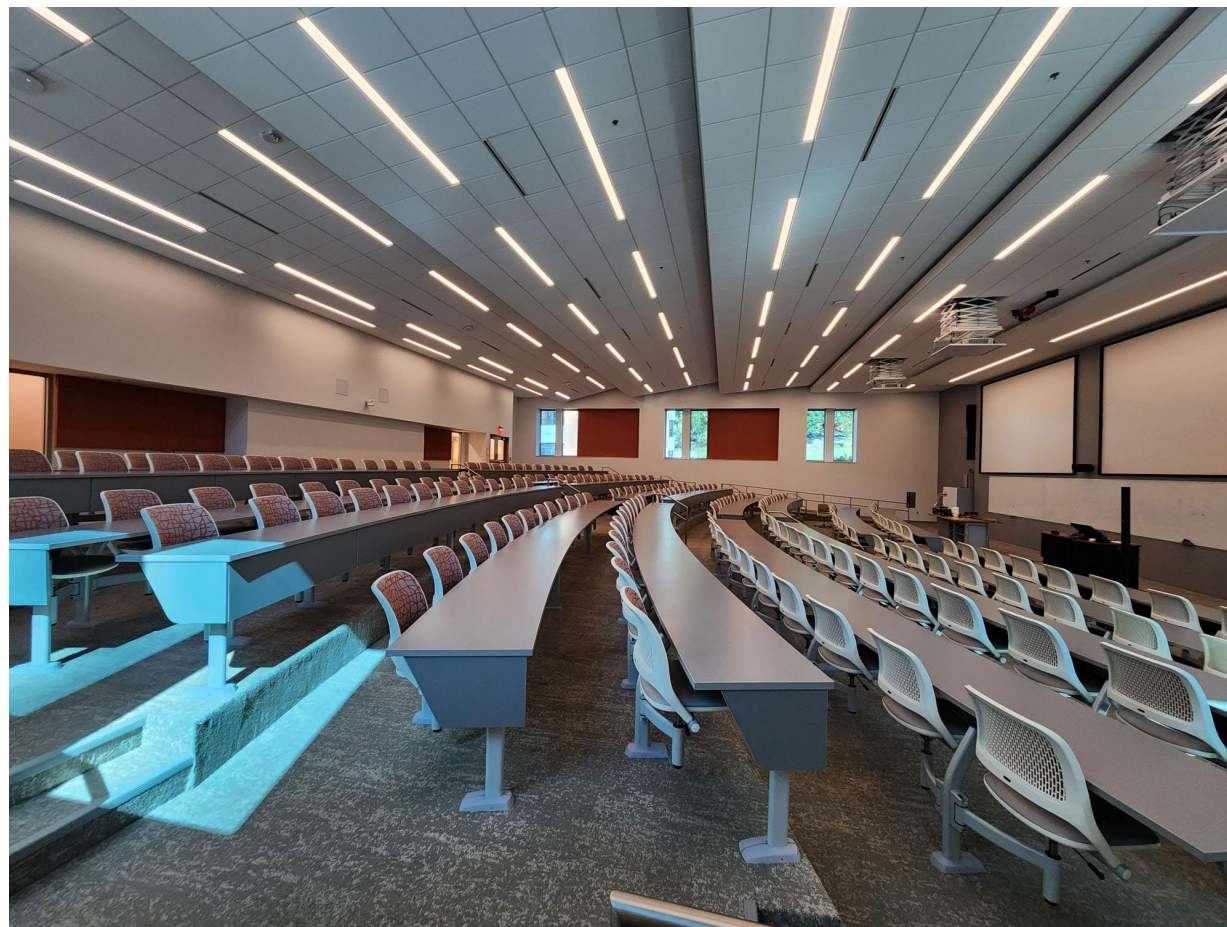
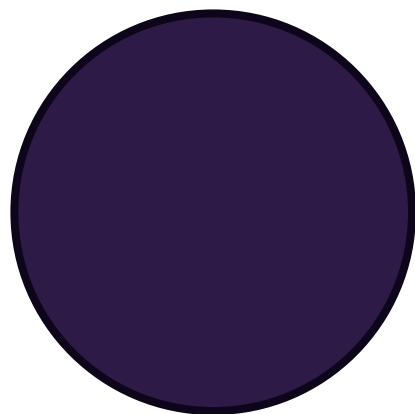
1. **Clear learning objectives** and transparent alignment with assessments.
2. **Chunking content** into shorter segments to avoid cognitive overload.
3. Designing slides and visuals with **large fonts and minimal clutter** for readability.
4. **Scaffolding activities** so students can build from simple to complex tasks.
5. Incorporating **technology tools** (Canvas quizzes, polling apps, collaborative platforms).
6. **Intentional pacing** with planned pauses for reflection or peer discussion.
7. Building in **equitable participation structures** so all students have a voice.
8. Designing assessments that are **scalable** (auto-graded quizzes, rubrics for consistency).

UNDERSTANDING WE ARE NOT ALONE

FINDING THE RIGHT RESOURCES

Institutional Support Available

What **resources** have you used to help you in designing and teaching highly attended courses?



Institutional Support Available

1. **Teaching and learning centers (OTEI)** offer consultations, workshops, and observation feedback.
2. **Technology support** (polling technologies, recorded lectures, Canvas integration).
3. **Graduate assistants or teaching assistants** to help with facilitation, grading, and monitoring engagement (GRAD 360°).
4. **Instructional design support** for course redesign and active learning integration.
5. **Accessibility services** to ensure materials are usable for all students.
6. **Peer observation programs** or faculty learning communities for sharing strategies.
7. **Academic Success Center** (Peer-Assisted Learning program, tutoring).

Resources

Peer Observation Training (OTEI):

- [Link to Peer Observation of Teaching Canvas Course](#)

Polling software:

- [Link to Western Washington University's ABCD Cards App Site](#)

Graduate Student Training (GRAD 360°):

- [Link to GRAD 360°'s Website](#)

Academic Success Center's Peer-Assisted Learning (PAL) Program:

- [Link to PAL Resources](#)

Clemson's Digital Accessibility Guides and Contact:

- [Link to Clemson's Digital Accessibility Website](#)

Key Takeaways – Teaching Increasingly Large Classes

- The challenges you will face will be **specific, but not unique**.
- The hardest part will be **compromising aspects of your current instruction**, rather than implementing new strategies.
- **You are not alone** in your teaching efforts. When in doubt about how to adjust a course or class for larger groups:
 - Contact a faculty support unit, or
 - Contact another instructor who teaches groups of a similar size.

REFERENCES

USED TO INFORM THIS SPARKSHOP

References

- Ake-Little, E., von der Embse, N., & Dawson, D. (2020). Does class size matter in the university setting?. *Educational Researcher*, 49(8), 595-605.
- Angrist, J. D., & Lavy, V. (1999). Using maimonides' rule to estimate the effect of class size on scholastic achievement. *The Quarterly Journal of Economics*, 114, 533–575.
- Bandiera, O., Larcinese, V., & Rasul, I. (2010). Heterogeneous class size effects: New evidence from a panel of university students. *The Economic Journal*, 120, 1365–1398.
- Bedard, K., & Kuhn, P. (2008). Where class size really matters: Class size and student ratings of instructor effectiveness. *Economics of Education Review*, 27, 253–265.
- Bettinger, E., Doss, C., Loeb, S., Rogers, A., & Taylor, E. (2017). The effects of class size in online college courses: Experimental evidence. *Economics of Education Review*, 58, 68–85.
- Cheng, D. A. (2011). Effects of class size on alternative educational outcomes across disciplines. *Economics of Education Review*, 30, 980–990.
- Cuseo, J. (2007). The empirical case against large class size: Adverse effects on the teaching, learning, and retention of first-year students. *The Journal of Faculty Development*, 21(1), 5–21.

References

- De Giorgi, G., Pellizzari, M., & Woolston, W. G. (2012). Class size and class heterogeneity. *Journal of the European Economic Association*, 10(4), 795–830.
- De Paola, M., Ponzio, M., & Scoppa, V. (2013). Class size effects on student achievement: Heterogeneity across abilities and fields. *Education Economics*, 21(2), 135–153.
- Diette, T. M., & Raghav, M. (2015). Class size matters: Heterogeneous effects of larger classes on college student learning. *Eastern Economic Journal*, 41, 273–283.
- Ho, D. E., & Kelman, M. G. (2014). Does class size affect the gender gap? A natural experiment in law. *The Journal of Legal Studies*, 43(2), 291–321.
- Hoxby, C. M. (2000). The effects of class size on student achievement: New evidence from population variation. *The Quarterly Journal of Economics*, 115(4), 1239–1285.
- Huxley, G., Mayo, J., Peacey, M. W., & Richardson, M. (2018). Class size at university. *Fiscal Studies*, 39(2), 241–264.
- Kara, E., Tonin, M., & Vlassopoulos, M. (2021). Class size effects in higher education: Differences across STEM and non-STEM fields. *Economics of Education Review*, 82, 102104.

References

- Kokkelenberg, E. C., Dillon, M., & Christy, S. M. (2008). The effects of class size on student grades at a public university. *Economics of Education Review*, 27, 221–233.
- Krueger, A. B. (2003). Economic considerations and class size. *The Economic Journal*, 113(485), F34–F63.
- Mandel, P., & Sussmuth, B. (2011). Size matters. the relevance and Hicksian surplus of preferred college class size. *Economics of Education Review*, 30, 1073–1084.
- Monks, J., & Schmidt, R. M. (2011). The impact of class size on outcomes in higher education. *The B.E. Journal of Economic Analysis and Policy*, 11(1 (Contributions)), Article 62.
- Sapelli, C., & Illanes, G. (2016). Class size and teacher effects in higher education. *Economics of Education Review*, 52, 19–28.
- Theobald, E. et al. (2020). Active learning narrows achievement gaps for underrepresented students in undergraduate science, technology, engineering, and math. *Proceedings of the National Academy of Sciences*, 117(12), 6476–6483.