



Course Comparability & Online Instruction

CMU institutional directives regarding course comparability and online instruction derive from the [Course Comparability Manual](#) and communications from Academic Affairs and the Office of the President originating in 2013. These communications instructed that face-to-face course capacities and online course capacities should be congruent. In fall 2016 (Academic Council Meeting: 11/17/2016) the following reaffirmation guidance was shared with Academic Department Heads as part of a broader discussion relating to low enrollment courses, summer, January term and online instruction:

Online Course Enrollments: Since 2012, CMU's policy has been that online sections should have the same course caps as face-to-face courses. Over time, however, increasing enrollments have often led to increases in online course caps. At the point at which online course caps can, in aggregate, support another section of the course, another section should be added. In this case, an additional instructor would be needed.

Grounded in a review of relevant literature, this document serves to provide course comparability guidance as CMU instructional needs continue to evolve.

Relevant Literature

Research on constructivist approaches to online learning (constructivist being a traditional faculty-led presence in a course) supports a requisite for increased engagement in order to promote teaching and learning comparability to F2F courses. This engagement is evidenced through use of discussion questions, instructor-posted videos, active learning activities, and small group assignments. For constructivist courses, research supports a class size of 25-30 students for maximum effectiveness (Aragon,2003; Rovai, 2002).

Non-constructivist classes (those that do not rely on instructor-student interaction, such as MOOCs or online courses heavily reliant on gaming content) may have significantly higher caps. These course types are not consistent with CMU's emphasis on teacher-student interaction.

- Variables impacting decisions about optimal class size include: (a) nature of the discipline, course objectives and outcomes, (b) instructors' prior experience teaching online, (c) student class level (undergraduate, graduate), and (d) overall institutional support for online instruction (e.g., faculty workload, technology staff assistance, etc.). With these variables in mind, research by Artz (2011) noted 12-22 students per class as desirable.
- [Rovai \(2000\)](#) recommended a class size of 30 students, noting that greater than 30 diminished the amount of social presence that can be established between student and instructor.

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- According to [Rao \(2000\)](#) courses designed to teach technical laboratory skills should be limited to 12-15 students. [Boettcher \(1998\)](#) recommended 25 to 65 students for courses focusing on training, certification and/or professional degrees.
- Roach (2002) recommended course caps for online undergraduate course work of 25 students. Colwell and Jenks (2006) recommended caps of 20 undergraduate students.
- [MacKinnon \(2002\)](#) suggested that class size should be limited to 20 students, while [Larson \(2002\)](#) found “...although greater student–faculty interaction had a positive impact on learning, class size per se had no significant effect” ([http://www.professionalnursing.org/article/S8755-7223\(08\)00095-1/fulltext#back-bib1](http://www.professionalnursing.org/article/S8755-7223(08)00095-1/fulltext#back-bib1)).
- [Palloff and Pratt \(2003\)](#) found a class size of 20 to 25 students facilitated a sense of connectedness and that large class sizes were associated with less satisfaction and less learning.
- Orellana (2006) reported online instructor perceptions of optimal class size ranging from 15 to 22 undergraduate students.
- “...for online classes that range from 16-40 students, increasing class size as much as 25 percent does not significantly affect student grades, credits earned...or enrollment... (Bettinger, Doss, Loeb, & Taylor, 2014).

CMU Course Comparability Guidance

CMU realizes there may be instances where course cap incongruity between F2F and online sections can be permissible based on:

- Course structure
- Pedagogical best practices of the discipline
- Co-requisite courses
- Artificially low enrollment caps in face-to-face courses due to facility or instructor limitations

Departments wishing to apply for a one-time or ongoing exception to expected course cap congruency should provide evidence and rationale, including a review of best practices, to the Director of Distance Education during the semester prior to the requested exception. Requests



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for exceptions beyond the areas listed above may be considered upon recommendation of the Director of Distance Education to the Vice President of Academic Affairs.



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References

- Aragon, S. (2003). Creating social presence in online environments. *New Directors for Adult and Continuing Education*, 100, 57-68.
- Artz, J. (2011). Online courses and optimal class size: A complex formula. ERIC.
- Bettinger, E., Doss, C., Loeb, S. & Taylor, S. (November, 2014). Panel Paper: Virtually large: The effects of class size in online college courses. In The 2014 APPAM Fall Research Conference. Albuquerque, NM
- Colwell, J.L. & Jenks, C.F. (2004). The upper limit: The issues for faculty in setting class size in online courses. Retrieved:
https://web.archive.org/web/20100607051111/http://www.ipfw.edu/tohe/Papers/Nov%2010/015_the%20upper%20limit.pdf
- MacKinnon, G. (2002). Practical advice for first time online instructors: A qualitative study. *Journal of Instruction Delivery Systems*, 16. 21–25.
- Rao, L. (2000). Can technical laboratory skills be taught at a distance? An analysis of a semiconductor course taught at a distance via interactive technologies. Unpublished Dissertation, The University of New Mexico.
- Palloff, R.M. & Pratt, K. (2003). *The virtual student: A profile and guide to working with online learners*. SF: Jossey-Bass.
- Rovai, A. (2000). Building and sustaining community in asynchronous learning networks. *The Internet and Higher Education*. 3, 285–297
- Roach, R. (2002). Staying connected: Getting retention right is high priority for online degree programs—special report: Recruitment & retention. Retrieved:
<http://www.findarticles.com>
- Rovai, A. (2002). Building sense of community at a distance. *International Review of research in Open and Distances Learning*, 3(1), 1-16.
- Orellan, A. (2006). Class size and interaction in online courses. *The Quarterly Review of Distance Education*, 7(3), 229–248.



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