

ONLINE COURSE DESIGN

TIME ON TASK

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INTRODUCTION

Understanding how time “works” in online teaching and course design is often a challenge for online instructors, especially those new to online education. Four distinct yet related questions can express the challenge:

- How do I, the instructor and/or course developer, determine the total time on task (per week and for the entire course) expected of students in my online course?
- How can I, the instructor and/or course developer, calculate how much time students will actually need to complete the course assignments, assessments, and other tasks?
- What should students be doing with their time to effectively and efficiently accomplish the goals and learning outcomes for my online course?
- What should I be doing with my time as an online instructor?

Let us address each of these questions in turn.

1. DETERMINING TIME ON TASK IN ONLINE EDUCATION

The academic credit model, developed on the Carnegie unit over 100 years ago, is based on classroom hours for students and corresponding contact hours for faculty. Online courses appear not to fit this model, as by definition they do not have face-to-face classroom/seat time. The consensus within U.S. higher education is that one college credit requires 15 hours of classroom time plus additional homework time for students (typically two or three hours per hour of classroom time). How, then, can this model accommodate courses that have no seat time?

The answer to this question is to de-emphasize the course mode (or course-delivery method) and focus instead on total time on task (by course and/or week). This is the approach taken by the New York State Education Department, Office of College and University Evaluation, in its current policies for online learning. The relevant section is worth quoting in full:

Time on task is the total learning time spent by a student in a college course, including instructional time as well as time spent studying and completing course assignments (e.g., reading, research, writing, individual and group projects.) Regardless of the delivery method or the particular learning activities employed, the amount of learning time in any college course should meet the guideline of the Carnegie unit, a total of 45 hours for one semester credit (in conventional classroom education this breaks down into 15 hours of instruction plus 30 hours of student work/study out of class.)

"Instruction" is provided differently in online courses than in classroom-based courses. Despite the difference in methodology and activities, however, the total "learning time" online can usually be counted. Rather than try to distinguish between "in-class" and "outside-class" time for students, the faculty member developing and/or teaching the online course should calculate how much time a student doing satisfactory work would take to complete the work of the course, including:

- *Reading course presentations/ "lectures"*
- *Reading other materials*
- *Participation in online discussions*

- Doing research
- Writing papers or other assignments
- Completing all other assignments (e.g. projects)

The total time spent on these tasks should be roughly equal to that spent on comparable tasks in a classroom-based course. Time spent downloading or uploading documents, troubleshooting technical problems, or in chat rooms (unless on course assignments such as group projects) should not be counted.

In determining the time on task for an online course, useful information include:

- The course objectives and expected learning outcomes
- The list of topics in the course outline or syllabus; the textbooks, additional readings, and related education materials (such as software) required
- Statements in course materials informing students of the time and/or effort they are expected to devote to the course or individual parts of it
- A listing of the pedagogical tools to be used in the online course, how each will be used, and the expectations for participation (e.g., in an online discussion, how many substantive postings will be required of a student for each week or unit?)

Theoretically, one should be able to measure any course, regardless of delivery method, by the description of content covered. However, this is difficult for anyone other than the course developer or instructor to determine accurately, since the same statement of content (in a course outline or syllabus) can represent many different levels of breadth and depth in the treatment of that content, and require widely varying amounts of time.

In sum, regardless of course mode or type of learning activities assigned, the total amount of student time on task for any RIT course (campus, online, blended, independent study, etc.) should total 45 hours per credit/contact hour. For a 3-credit course, for instance, that works out to 135 hours total. (In practical terms, the 45 hours per credit is a *minimum* recommendation, as many programs at RIT and elsewhere expect more time on task per credit hour.)

The hours per week will, of course, vary depending upon the length (in weeks) of the course. See Figure 1 below for a breakdown of the time on task for RIT’s major 3-credit course formats. The second column provides the total hours per week that students will need to complete their course work. For an 8-week online course, for example, the instructor and/or course developer knows that students can expect to spend about, but certainly no more than, 17 hours per week on course work.

Figure 1. Learning hours per week for RIT’s major 3-credit course formats

Course format in weeks	Total hours per week	Total hours per course
16	8.4	135
10	13.5	135
8	17	135
5	27	135
3	45	135

2. CALCULATING THE TIME NEEDED TO COMPLETE SPECIFIC ONLINE TASKS

The above guidelines from the New York State Education Department address how to determine not only total time on task, but also the time needed to complete specific learning tasks. For a variety of factors, it is far more challenging to determine the latter than the former. (One of the biggest factors, of course, is student variability in ability, experience, and motivation.)

Nonetheless, the higher education literature does offer at least three viable methods for calculating completion times for learning tasks in any course mode:

- The experiential method. The least studied, but probably the most common method. As McDaniel (2011) wrote, “Faculty can use their experience to estimate the time and effort needed by the typical student to engage successfully in each of the learning activities in a particular field, course, and program...Using these estimates, the designers of courses determine if students have the requisite time to meet course expectations.”
- The proxy method. Similar to the experiential method, but with a formula. Here the instructor and/or course designer first calculates how much time it takes them to complete a given task, and this figure is then multiplied by some factor. As Carnegie Mellon University (2013) explains to their faculty, “To calculate how long it will take students to read an article or complete an assignment, you can estimate that your students will take three to four times longer to read than it takes you.”
- The survey method. Involves surveying students after they have completed a given task. Carnegie Mellon University (2013) advises faculty “to ask students how long it took them to do various assignments, and use this information in future course planning.”

3. LEARNING TIME FOR STUDENTS IN ONLINE COURSES

Having addressed the determination of time on task, and the calculation of completion times for learning tasks, let us move on to the matter of what students can and should be doing with their time to effectively and efficiently accomplish the goals and learning outcomes for their online courses.

Despite some significant differences in communication technologies and pedagogical methods, online courses are similar to on-campus courses in many important respects. As we have seen, total time on task is the same for online and on-campus courses of equal lengths. Additionally, an online course will have the identical goals and learning outcomes as its on-campus counterpart. The online course must be equal in content and challenge as the on-campus course (Vai & Sosulski, 2011).

How students spend their time in on-campus and online courses is directly related to the assignments, assessments, and other tasks given by instructors. In the classroom portion of on-campus courses, students typically do some of the following activities:

- Listen to and take notes on lectures, presentations, and multimedia.
- Participate in whole-class and small-group discussions with other students and the instructor.
- Engage in experiential learning activities, such as labs, studios, and simulations.
- Practice developing new competencies.
- Take quizzes or exams.
- Write short in-class essays.

Students typically do the following as outside-class activities in on-campus courses:

- Read articles and books.

- Review class notes.
- Solve homework problems.
- Conduct and write-up research.
- Complete projects and other major assignments.
- Prepare classroom presentations.
- Meet with instructor during their office hours.

The same categories of learning tasks or activities exist in both course modes, though online instructors usually modify the on-campus activities to make best use of online communication technologies and pedagogies. (It should be noted that *on-campus* instructors are increasing incorporating online learning tools and methods into their courses.)

Turner (2005) offers several representative samples of on-campus learning activities that have been modified for the online learning environment:

- An online lecture may be an instructor's commentary on the readings, with some links to illustrative images, media, or text.
- Small-group work may be a quick breakout in the asynchronous discussion area for a few days.
- Experiential learning activities can be online labs, interviews, activities within the community, and online field trips.
- The whole-class asynchronous discussion area will allow the instructor to expand upon the lecture and also facilitates post-lecture Q & A and general student interaction.

As these samples suggest, online teaching and course design incorporates and, at the same time, changes the discrete on-campus activities. The online lecture is both lecture and reading. Individual time and effort spent in small-group work is visible and therefore measurable (unlike face-to-face group work) and consists of research, reading, and writing. Experiential learning activities include student reports back to the instructor and/or the entire class. The online discussion is reading, writing, and (ideally) part of the instructor's "lecture" component (Turner, 2005).

EXAMPLE TASKS AND COMPLETION TIMES FOR ONE WEEK OF AN ONLINE COURSE

Here is an example of one week (8.4 hours) of learning tasks or activities and respective completion times for a 16-week, 3-credit course (Turner, 2005):

- Three, 15-minute chunked lectures (text or video) that cover one course topic each; links to illustrative web-resources are included in each mini-lecture (1 hour).
- Assume that students spend additional time to review these lectures and explore the links to web-resources (1/2 hour).
- After reading/viewing the mini-lectures, students will post a short "knowledge check" self-assessment statement to the course drop box. This activity will help the student gauge his/her understanding and retention of the lecture material (1/2 hour).
- Assign readings (1 hour).
- Require students to complete a 10-item online quiz to check their understanding of key terms and concepts from the readings and lectures (1 hour).
- Assign a discussion topic on a contemporary issue with a triple-layer response requirement (i.e., original post, responses to three classmates' posts, responses to responses) (2 hours).
- Stipulate that small groups meet in their web-conferencing "room" and/or asynchronous discussion area to

work on an iterative deliverable for their group project; for example, discussing and producing an outline of their final report (1 hour).

- Work on final research paper and presentation, which are due at the end of the course (1 1/2 hours).

4. INSTRUCTIONAL TIME FOR FACULTY IN ONLINE COURSES

The following (Vai & Sosulski, 2011) is most likely how an instructor spends their time in an online course (assuming, that is, he/she is both designing and teaching the course):

- **Designing the course.** Ideally this is accomplished before the course begins. Instructors who have never designed an online course are encouraged to take the Designing an Online Course workshop, which is offered annually by the Teaching & Learning Studio.
- **Posting new material** after the course has been fully designed and is “live.” In response to contemporary events and student needs/interests, the instructor is putting up announcements, calling attention to relevant material outside the course shell, posting commentaries on the discussions and other activities in the course, etc., as needed.
- **Checking in on student interactions, participation, and questions** about the course. This most typically happens in a dedicated discussion area (i.e., a Q & A or Ask the Instructor discussion forum), but also in email and in other ways and “places” online, such as blogs, wikis, web-conferencing meetings, etc.
- **Giving feedback on assignments.** Activities such as providing written comments (along with grades) when using the grade book, and giving more extensive written feedback on student work that is posted to the drop box.
- **Class management.** Includes activities such as sending out reminders of assignments that are due, grouping/pairing of students for team projects, and introducing new assignments and requirements.

REFERENCES

- Carnegie Mellon University, 2013. Solve a teaching problem: Assign a reasonable amount of work. Retrieved Dec. 9, 2015, from <http://www.cmu.edu/teaching//solveproblem/strat-lackmotivation/lackmotivation-05.html#strat1>.
- McDaniel, E. A. (2011). Level of student effort should replace contact time in course design. *Journal of Information Technology Education*, 10(10).
- New York State Education Department, Office of College and University Evaluation (2013). Policies: Determining time on task in online education. Retrieved Dec. 9, 2015, from <http://www.highered.nysed.gov/ocue/ded/policies.html>.
- Turner, T. (2005). Student workload in the online course: Balancing on a rule-of-thumb. *Educator's Voice*, 6(3). Retrieved July 3, 2013, from <http://ecollege.com/Newsletter/EducatorsVoice/EducatorsVoice-Vol6Iss3.learn>.
- Vai, M. & Sosulski, K. (2011). *Essentials of online course design: A standards-based guide*. New York and London: Routledge.