Technology

- As detailed below, I make use many options available on campus, including Moodle, clickers, mail merge, social media, Google apps, and more. I welcome your suggestions of other tools that I should explore or employ.

Student Contact:

- **Phone:**
  - My campus line permanently forwards to my cell phone (and I have no home landline).
  - Students are encouraged to call 24/7. I answer at all hours, return unanswered calls the same day (usually within hours), and follow-up by text (SMS or MMS) messages.
  - Students are also required to provide a phone number, and I call them if they miss several consecutive classes or are behind on several assignments.
  - I send text messages to students with excessive absences or grades at or near failing.

- **Email:**
  - I provide at least a half dozen email addresses, all simultaneously monitored around the clock, through weekends breaks and holidays, and years beyond the semester.
  - Students are required to provide email addresses, and I email them at least weekly, including mass-personalization via mail merges to several dozen templates.

- **Office Hours:**
  - I offer 10-14 weekly online office hours in Facebook IM, MySpace IM, GoogleTalk, Skype, Yahoo Messenger, AIM, Microsoft’s Messenger, SecondLife, and Moodle Chat; scheduling the services, days, and times, requested by students via an intake form.
  - I also typically hold double the on-campus office hours required for my load.

Student Engagement:

- **Intake Form:**
  - All registered and wait-listed students are emailed in advanced of the each course, detailing initial plans, the address of the course website, and their need to complete a web-based survey form, which feeds into an Excel database which I later use to generate student emails, data for lab assignments, and some lecture content.

- **Emails**
  - Individual Progress Reports are generated through a mail merge (from Excel to Outlook, through several plug-ins) that customizes the text for each students using hundreds of pieces of logic and scores of variables, ranging from simple pluralization to entire paragraphs of hierarchically conditional sentences. I employ several dozen templates, all feeding from the same database, including a primary Weekly Update as well as, for example, first-week and midterm summaries, and special alerts about excessive absences or grades bordering on failing.
  - These emails are distributed, to all addresses each student has used or provided, through a patchwork of Outlook plug-ins that (among other tasks) customize subject headings,
space emails 70 seconds apart (to satisfy spam and unacceptable use triggers), and track responses into a related custom database.

- The Weekly Update extensively details the student’s progress and current standing in the course, including information about their attendance, overdue work, current grade components for each type of assignment (quizzes, labs, exams, etc.), and an interval estimate of the student’s final semester grade, all updated live on a constant basis.

- **FAQ File:**
  - Each course has a “Frequently Asked Questions” file including responses to sometimes dozens of questions that are typically asked – about how to access resources, meet requirements, calculate statistics, and more – integrated with links to course lecture notes, course guidelines (see next page), and external resources.

- **Suggestion Box:**
  - A separate web-based survey form invites student evaluation and input, about any matter, at any point during the course, directly and immediately to me, anonymously if desired.
  - This tool has been helping for resolving a number of student matters, such as concerns about having to share lab credit with “friends” who didn’t contribute but whom the complainant did not want to offend. (See below for resulting changes in lab strategies.)

- **Goddard Glossary:**
  - In Moodle, a second glossary for student to translate anything that I saw or write that they think could be said better, or that they regard as idiocyncratic.

- **Long-term Strategy:**
  - For ten years, I’ve kept student records in a separate Excel workbook for each course, but have slowly standardized them in content and structure. I am just beginning to consider the benefits of having all student records and interaction tracked within the same customized system, have begun using a standardized database for all classes (with a core of 23 spreadsheets modularly used among the classes), and will at some point backfill previous courses in order to build longitudinal data about improvements and variations in student performance vis-à-vis changes I’ve made in pedagogy, course content, and assignment load.

**Grading Strategies:**

- **Bonuses:**
  - Like many faculty, I penalize late work (5%, a half letter grade) for each class day work is late. But I also reward early work (2% for each class day that work is submitted early).
  - I response preemptively to semester-end requests for extra credit, with creative opportunities throughout the semester. For example, Mystery Measurements – a set of numbers that count or describe some aspect of a course, requiring students to come to understand the course itself in order to receive nominal extra credit.
  - Extra credit opportunities are also given for applying course material to everyday life. For example, statistics students may earn an extra point on their final grade for finding and reporting a misuse of statistics in a newspaper or magazine.

- **Curving:**
  - Grades are standardized using a composite formula that takes into account means, medians, standard deviations, and ranges – adjusting statistically, but not arbitrarily imposing a “normal curve” and not inflating grades.
o This formula balances competing anticipations for grade distributions that are roughly bell-shaped but that reflect actual variation in performance, while providing students a fair, objective, and transparent means of assessing their work. In statistics courses, grades themselves become a teaching tool.

Gradebook:
- All grades are posted online, using student-selected “codenames”, including a complete record of what each student submitted, when, what they scored, the translated “grade” on that assignment, and an on-going estimate of their overall course grade (using a truncated and adjusted confidence interval). In short, my entire gradebook is online.

Guidelines:
- All syllabi are a single page, covering only material pertinent to the particular course: purpose, objectives, requirements, texts, and related comments. A one-page schedule is available as a web page, typically printed and distributed with the one-page syllabus.
- The website includes a separate document for generalized matters – such as policies about attendance, tardiness, and late work; suggestions for campus resources; and lab hours – that apply to all my courses – which if included in the syllabus would add several dozen pages.
- Students acknowledge having read and agree to abide by these general guidelines through a signed document submitted early in the term, such as a first day intake form or class survey.

Student-Guided Design Strategies:

Variable group size:
- To encourage students to engage material from different perspectives, as well as to give some of them an “out” from perceived obligations to “friends”, successive labs early in the term are required to be of different groups sizes. And, because one person in any group does more work than the rest – writing everything down, if nothing else – I give a Secretary Bonus (5 extra points) to whoever does the writing.

Self-Paced:
- I’ve had online components to all courses since 1995, and now routinely offer a complete schedule, including all assignments, handouts, and lecture outlines, all of which are offered throughout and beyond the semester. Students can complete the entire semester as quickly as they like, allowing them to allocate their semester among other classes and responsibilities as needed. As a result, they submit work 1/3 of a day early on average!

Text-selection and Quiz-design:
- To integrate students in the flow and administration of online courses, I’ve experimented with course design – including offering a list of thirty different texts/readers and having each student choose a different one, summarize their own reading on a particular topic, and then compare theirs to two others using other students’ summaries; and having students submit quiz questions based on their reading, evaluate those submitted by other students, and then giving the class a quiz based on the best questions.