Working on assignments in LON-CAPA

You will see a list of current and previous assignments on LON-CAPA after you log in; each assignment is a folder of problems. When working online, you'll be shown one question at a time. Navigation buttons on at the top of the Web page allow you to move back and forth through the assignment.

Once you start navigating through the problems on an assignment, you'll see an icon at the top right of the page for printing. This link lets you download and print a PDF copy of your assignment. I *strongly* suggest you print out your own problems so that you can work on them when you're away from a computer, bring them to office hours, etc. Of course, your results *must* be submitted online.

Keep a record of *all* your work in a notebook, including the mistakes! This can come in handy when studying for exams.

Do not wait until the last minute before submitting your homework. *Late homework will not be accepted or excused,* even for situations like your computer crashing.

Significant digits

Most problems will require two or three significant digits in numeric answers. It should be clear either from the statement of the problem, or from the numbers given. LON-CAPA will warn you if you enter more or fewer digits than required.

It's always good to keep a couple *more* digits in your own work than you're asked for in the final answer, to help avoid roundoff errors. This is especially important when dealing with multi-part problems.

Most numerical problems will allow for answers that are close to the actual value (typically within 1-2 percent). Thus, just changing the last digit in your answer when it's incorrect will *almost never* succeed.

Numbers and notation

You will see numbers written in a few different ways. Numbers may appear in standard scientific notation (e.g. 2.4×10^3), a "flattened" version using an asterisk and a caret (e.g. 2.4*10^3), or in so-called "calculator notation" (e.g. 2.4E3). When you're entering your answers, you can use the latter two types of notation, unless explicitly told otherwise.

Correct: `1E-4`, `2.4E3`, `27.8`, `10^-4`, `2.4*10^3`
Incorrect: `E-4`, `1E(-4)`, `2.4E^3`, `2.4E(3)`, `2.4 E 3`, `2.4*E3`, `2.4^3`, `2.4x10^3` (letter "x")

Units

Many answers will require you to enter numbers with units. LON-CAPA will warn you if your units don't make sense for the answer, and will provide a help icon that pops up a list of accepted units. When entering units, use standard abbreviations, and proper prefixes and capitalization.

When combining units, a space or asterisk (*) denotes multiplication (**NOT** the letter "x"); a slash (/) is division; a caret (^) denotes exponents.
Correct: `m/s^2`, `kg m/s`, `Hz`, `km`, `m^2`, `deg`,
Incorrect: `m/sE2`, `kgm/s`, `hz`, `Km`, `square meter`, °

Formulas

Most of the questions will have numbers as their answers, but a few questions ask for formulas. Keep the following in mind:

- The standard symbols for arithmetic are **+,-,*,/,^** (for addition, subtraction, multiplication, division, and exponentiation).
- You can use parentheses **( )** for grouping, but **not** brackets [ ] or curly braces **{ }**.
- The standard "order of operations" applies. For example, **6/2+4** equals 7, while **6/(2+4)** equals 1. Also, **x^6/2** means "$x^6/2$", not "x^3".
- You *must always* explicitly indicate multiplication: for example, you need to enter **3*y*z** instead of just **3yz**. When you write **yz**, that is interpreted as a variable called "yz".
- If a question asks you to solve for a variable (say y), you should **not** enter "$y =$ (whatever)". Just enter your result, without the equals sign.
- Don't rename variables, or make up new ones that appear in your final answer. For example, if a question mentions only the variables c and x, your answer should not use y instead of x, nor should your answer have a new variable q.

LON-CAPA has its own help page on entering formulas.