## Teaching Notes

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**Course Information**

Department: **Biology**

Level: **Upper Undergraduate**

Course type: **Lecture & Lab**

Students: **Majors**

Number of Students: **40**

**Module Information**

Original Module Name: **Climate Diagrams**

Link to Original:

[Adapted Module Name: (if applicable)

Link to Adapted Module]

Modified Module Name: **Climate Diagrams**

Files associated: **Class worksheet**

Modification Learning Goals:

* Students will learn how to read climate diagrams
* Students will learn how to create their own climate diagrams.

**Teaching Notes**

The goal of this mini-case study was to introduce ecology students to read and using climate diagrams, in conjunction with the abiotic factors chapters in the SimBio ecology text (http://simbio.com/products-college/simutext-ecology). The activity consists of a worksheet, broken into step-by-step activities. I also projected the worksheet on the screen, as we discussed it.

The mini-case study does require some preparation on the part of instructors, since they will want to enter data on local climate—monthly precipitation and rainfall. Alternatively, the instructors could use data from a famous place or a site of some meaning to the class—such as where a field trip will be taken. Depending on how easy it is to find local weather data, this may take a half hour to an hour. Check out www.ncdc.noaa.gov/cdo-web and [www.globalbioclimatics.org](http://www.globalbioclimatics.org) for data.

From beginning to end, the activity took about 45 minutes. Students seemed to enjoy it, though clearly some were more engage than others. I had each student fill out a worksheet and these were turned in for credit (though, since we went over the answers, not graded). One alternative would be to divide the course into groups and provide each with data from separate sites that they could then plot on the board. Alternatively, students could download data for an assigned site and use that to make a climate diagram. This would be particularly useful if the worksheet is given as homework.

Because the worksheet is in two parts, it would be easy to just do the first part, or to split the work up across two days.

On the exam that tested this material, students did very well. Student were asked to read a novel climate diagram and answer questions about it, including extrapolations about the climate.