

Bio 111 Pre-Lab for Lab #03: Name _____

Protein Structure TA & Sect. _____

1) Choose any two amino acids from the chart of amino acid structures at the end of the Biochemistry section of APAIB, give their names and characterize their side chains by checking the boxes as appropriate.

<u>Amino acid</u>	<u>'phobic/'philic</u>	<u>Bonds it can make*</u>
Name:	<input type="checkbox"/> 'phobic <input type="checkbox"/> 'philic	<input type="checkbox"/> H-bond(s) <input type="checkbox"/> ionic bond(s) <input type="checkbox"/> 'phobic interaction <input type="checkbox"/> van der Waals
Name:	<input type="checkbox"/> 'phobic <input type="checkbox"/> 'philic	<input type="checkbox"/> H-bond(s) <input type="checkbox"/> ionic bond(s) <input type="checkbox"/> 'phobic interaction <input type="checkbox"/> van der Waals

*Assuming that a suitable partner exists.

2) Which interaction(s) are possible between the side chains of the two amino acids you selected?

- H-bond(s)
- ionic bond(s)
- 'phobic interaction
- van der Waals
- none

3) Go to the Bio 111 website and, under the On-line Lab Manual, click the link for "Protein Structure Exercises" for this lab. Click the "Show console" button. Type the following commands into the bottom window of the console; remember to enter each command line by pressing the "return" or "enter" key.

```
select all
spacefill off
select 28
spacefill on
```

One single amino acid will be shown in spacefill view. Put your cursor over that amino acid to find out what kind of amino acid (alanine, etc) it is. Give the *full name* of the amino acid (alanine, etc) in the space below:

4) On the back of this sheet, give 3 to 5 short (~1 sentence each) bullet points describing, *in your own words*, what you will be doing in the lab today. There are a wide range of full-credit answers here; we will grade this as a 1-point check off.

