**Questionnaire responses for Jan 19, 2017**

Gerell: I also want to gain good relationships with some professors which is something I have been struggling to do.

Lasya: Having study groups outside of class really helped, as well as having teachers who genuinely care about your progress as a learner (and more about your ideas and the overarching theme of your assignments than little details).

Lasya: Challenging courses are necessary for growth, but I think that feeling completely lost during a class hinders growth. This happens sometimes when teachers (who are completely brilliant) forget that those who are taking their class may not be as familiar in the topics they present (and actually may be less mature intellectually just because of age and lack of higher education like grad school). This has only happened a couple of times and I don't want to blame the teacher for this as they may not even realize what's going on. When this has happened in the past, my solution was to ask the teacher more questions and put a lot of time aside to study the topic more in-depth. This really isn't a big problem if handled correctly (although it is stressful at first), and I am actually glad that I was able to learn from these experiences.

Barath: I find having a textbook for classes be useful. It serves as (at least) a last resort if I do not completely understand something. I have struggled in classes where there were not many resources to refer to.

Jacob McGill: I hope to improve my research skills.

Yash: I hope to gain a bigger knowledge about the application of bioinformatics. Sometimes I fail to see the big picture of it and where bioinformatics stands in the entire field of informatics as a whole. Basically, I just want to see what I can use these skills I'm learning for.

E: please be caring and open minded

Name: Colin Hawkes  
course: I'm interested in how the classes-- and the material engaged in class-- will flow. In other words, what in the world will we be doing//learning//engaging each class and how will we go about covering it? While I'm certain this will soon become relatively clear, I must say I'm interested in how class will be conducted.  
finding-articles: From my understanding, the major distinction between research and review is the presence of a specific outline of the experiment that was performed; after looking at "How to Find Articles," I must say that-- while this is embarrassing-- I didn't know that being a VCU student offered exclusive access to certain research articles; I am also interested in speaking with a reference librarian, I have never done so and I'm interested to see exactly how valuable a resource they might be.  
Results-conclusions: I suppose I am not as comfortable in distinguishing between results and conclusions as I would like. If I were pressed to define each, I would say that a result/observation is more "cut-and-dry" and requires little to no assumption; whereas a conclusion is not as clear as a result and requires an assumption or even an extensive string of assumptions.  
VitaminD: I'm confident I've found the correct research article; I'm also confident I've accurately made sense of it.  
Assembly-up-to: read completely  
Self-Assembly: B.) the water molecules want to make H bonds, so when the hydrophobic plastic beads interfere, the water ventures to make as many H bonds as possible, therefore favoring a conglomeration of plastic beads over a dispersal of plastic beads. C.) the hydrophilic glass beads are capable of making H bonds with the H molecules in the water; considering this, the glass beads have the greatest amount of contact with the water (and therefore a higher potential of making H bonds) at the meniscus/outer edge of the dish and tend to find there way to the edge of the dish. D.) using the example of the lipid bilayer in cell membranes, the "head" molecules are attracted to water (hydrophilic) and the "tail" molecules are repelled by the water and attract to one another (hydrophobic). This creates a bilayer structure (I suppose that's what it's called) which functions to encapsulate the cell and create a stable internal environment.  
Gene-up-to: II. D  
ThusFar:  
Gene comment: C.) genes are the fundamental block of the genome (the total collection of an organism's genes)  
D.) I can't say I'm very comfortable with the coordinate system  
Thanks for pressing : Submit  
What-is-a-gene?: I understand that a cell determines where a gene begins and where a gene ends through recognizing start codons and stop codons. My ignorance on this subject arises from exactly what start and stop codons are//are composed of//how they differ from other codons. According to "What is a Gene," all start codons are ATG//AUG?

Name: Nikhita Puthuveetil  
course: I know this isn’t a lecture type course so I was wondering how the class was going to be handled. Is it a discussion led course, or are we working on a project/assignment?  
finding-articles: A. Research articles have a clearly defined methods and results while a review article does not.  
B. Yes, I have.  
C. No, How to Find Article does a good job in helping me find an article.  
Results-conclusions: A result is something based on something you’ve seen/heard/sensed. A conclusion is something that is based upon yours/someone else’s observations or conclusions.  
VitaminD: Yes, but the article doesn’t really tell me much about how vitamin D explicitly causes less falls. The article does mention how vitamin D increases bone density and you can infer that it causes less fall but there is no evidence that vitamin D causes less falls.  
Assembly-up-to: Have finished it  
Self-Assembly: I would like to learn more about how the properties/interactions can determine the shape of complex structures.  
Gene-up-to: I don’t have any issues finding the articles.  
ThusFar: I think it would be helpful to have some extension cords just in case my laptop runs out of power.  
Gene comment: I understand the relationship between a gene and genome as well as the coordinate system. Looking at What is a Gene, I’m still a little confused as to some of the functions of BioBike. I think I’d like a little more help using BioBike.  
Thanks for pressing : Submit  
What-is-a-gene?: A cell determines where a gene begins by its start sequence or the star codon, ATG. Every gene will start an ATG.

Name: Thomas Raymond  
course: None at the moment.  
finding-articles: A) I think the biggest indicator of a research article is that it thoroughly describes the methods used in the experiment along with the results of the experiment. The methods described should be detailed enough that the experiment could be replicated.  
  
B/C) I have looked at How to Find Articles, and the resources have helped me to begin my article search for exam 1.  
Results-conclusions: A result is something that you observe/obtain during an experiment. A conclusion is the collection of final thoughts based on the results. The conclusion in most cases attempts to explain why the results were obtained.  
VitaminD: B) I have found the article.  
C) Yes.  
Assembly-up-to: I’ve perused all the way through  
Self-Assembly: The notes were straight forward.  
One question that I had while looking at the notes was if similar membranes could form in hydrophobic substances, such as oil. This would have hydrophobic tails pointing out while the hydrophilic heads point in. If so, would this membrane be able to support life at a level close to or equal to the cell membrane we know today? Not so much a question about the notes as much as a question brought on by the notes I suppose.  
Gene-up-to: II.20  
ThusFar: Power strips would be useful, I have a pretty weak laptop battery.  
Gene comment: I feel comfortable with the distinction between the gene and genome. A gene is a single coding section, while a genome encompasses the entirety of the genetic information in an organism.  
If I’m understanding the coordinate system right, it seems to refer to the position of a particular nucleotide base in a genome.  
Thanks for pressing : Submit  
What-is-a-gene?: So far, it seems that the cell determines the starting point of a gene by searching for a base-pair triplet that is typically “ATG.” However, this is not always the case. For example, “GTG” and “TTG” were both also found to be the triplet that began a gene. This may have to do with the function of the gene. It does seem important to note that these triplets still have “TG” as the second and third bases.

Name: Bethany Yachuw  
course: None  
finding-articles: No issues here!  
Results-conclusions: A result is the exactly what happened. A conclusion is an interpretation of the result.  
VitaminD: Yes.  
Assembly-up-to: Finished  
Self-Assembly: I understand most of the notes. I’m not clear on how the interaction between plastic beads and the water requires energy. Is it because the hydrogen bonds are broken?  
Gene-up-to: II.20  
ThusFar:  
Gene comment: I feel comfortable with both topics.  
Thanks for pressing : Submit  
What-is-a-gene?: The cell determines the beginning of a gene by the start codon, which is typically ATG or AUG. I do not understand how the cell tells the difference between ATG starting the gene and just a random ATG, more clarification in class would be appreciated.

Name: Ruairidh Barlow  
course: None at the moment.  
finding-articles: I am clear on how to find a research article and I found ones for Exam I. However, I am not clear on the difference between a research article and a review article. I am under the impression that a research article has to have a methods section so that you can replicate the experiment. At the moment I think that is the most novel distinguishing characteristic between the two types.  
Results-conclusions: I think that I have a good grasp of the distinction. Some more practice would help me.  
VitaminD: Yes, I have found my article and I believe that I understand it enough to answer my question.  
Assembly-up-to: I read all the slides, took notes, and answered the study question.  
Self-Assembly: I would like to know if my answer to the study question at the end is correct.  
Gene-up-to: I opened it and skimmed.  
ThusFar: Nothing so far.  
Gene comment: I do not know what a coordinate system. I would appreciate it if we could go over it. Also if we could go over how a cell determines how a gene begins.  
Thanks for pressing : Submit  
What-is-a-gene?: A gene starts in the promoter region of a DNA strand and has a terminating sequence where the gene ends.

Name: Kevin Limlengco  
course:  
finding-articles: I’m still debating on what topic I want to do my proposal on. I hope to do a proposal on something that’ll interest me and at the same time would be convenient i.e. (there’s more than one faculty member who has the same interest).  
Results-conclusions: Result is the tangible/physical data produce by the experiment or procedure while conclusion is what we make of it or what we can take from it.  
VitaminD: Found it odd that even though their experiment showed that there’s no correlation in supplementation of Vitamin D and Calcium with preventing secondary fracture they still mentioned a quote from another person that Vitamin D and Calcium could prevent fracture. Which just contradicted their results.  
Assembly-up-to: Finished  
Self-Assembly: B. Not too much  
C. Not too much  
D. Makes much more sense.  
Gene-up-to: Not started  
ThusFar:  
Gene comment:  
Thanks for pressing : Submit  
What-is-a-gene?:

Name: Jacob Jaminet  
course: Going well thus far  
finding-articles: A. YEs  
B. After reading the above question, yes. This topic was also discussed in the scientific journalism class I was in last semester. They did an excellent job of getting librarians from the different branches of science to come in and present on their database of speciality.  
C. Not yet  
Results-conclusions: I am comfortable with this. The exercise was good at showing how a result is an observation that someone made and a conclusion is a person’s interpretation of what they saw.  
VitaminD: Yep, the article I was assigned was an easy read. I look forward to the discussion tomorrow.  
Assembly-up-to: Went through it all  
Self-Assembly: B.The plastic beads cause a disruption to the hydrogen bonding of the water molecules. I’m missing the connection on why the plastic beads come together or why the water pushes them toward one another?  
C. The meniscus allowed more interactions to form with the glass beads but I don’t see how the meniscus forms unless it is interacting with the sides of the petri dish, perhaps?  
D. With the principle of like attracts like, the glass beads want to be together in an aqueous environment and the plastic beads don’t want to interrupt the bonds of the water so they come together. On the last slide where it goes into how each bead can have different properties, I saw how that could change subtle parts of the structure but not necessarily the larger, grand scale of the structure.  
  
I would like to have some breakout discussion with my peers and put into words what is happening with the bonds between water molecules so I have a firmer understanding.  
Gene-up-to: Haven’t started. I have the intention to look over it before class tomorrow morning.  
ThusFar: I am concerned with my laptop maintaining power and would appreciate power strips being made available.  
  
I am also concerned about some of my peers choosing to sit in the back of the classroom at the start of class. It’s a small classroom and we can all see them back there. It doesn’t make for an inviting class atmosphere.

Name: Aisha Ikram  
course: What would you suggest being the best approach to spend our time wisely in getting everything we need to do done?  
finding-articles: No issues finding the articles we need to find for the exam.  
Results-conclusions: A result is what actually happened due to for example a problem or an observation. A conclusion is an explanation drawn from the result.  
VitaminD: Yes, after reading the article and taking notes on it I can make sufficient sense out of it.  
Assembly-up-to: Finished going through the notes once.  
Self-Assembly: B)If the interaction is hydrophobic it causes them to stay away from the water.  
C)If the interaction is hydrophilic it causes them to form more towards the water.  
D) It can cause a bi-lipid layer to form due to the hydrophilic and hydrophobic interaction.  
Gene-up-to: Went through the tutorial once.  
ThusFar: Yes if you can get outlets for our laptops that will help so much!  
Gene comment: C) Gene is the building block of a genome.  
D) The coordinate system is the way information is structured.  
Thanks for pressing : Submit  
What-is-a-gene?: Cell determines where and how the gene is translated, according to what kind of a cell it is. Depending on eukaryotic and prokaryotic a gene can be translated differently.

Name: Ahmed Alqaffas  
course: What kind of research I’m ought to write?  
finding-articles: no, thanks  
Results-conclusions: somewhat comfortable. that if my understanding of the difference between them.  
VitaminD: no, based on one article I can’t. I need more resources and wider study of more specific target.  
Assembly-up-to: completed it.  
Self-Assembly: to explain how an example can be applied on microbiology functions.  
the material is clear.  
Gene-up-to: first part, completed.  
ThusFar: I think that we having videos and other media as a references can save a lot of time in oppose to reading only articles. that been said, I think reading articles is very important, but saving time (not handing in conclusions) by presenting a less dense highlights of what major process occurred to acquired a specific conclusion.  
Thank you :)  
Gene comment: more clear examples,such as if the cell differentiate between the genome and the genes or that   the actual morphology  of genome is more or less of smart saying of area.  
Thanks for pressing : Submit  
What-is-a-gene?: based on what I’ve read, I lack the knowledge to do so. however, I can assume that having certain arrangements of DNA bases trigger a sequence of activation chain that provides a start point of “copying” that bases’ complement. ( my reason had to do with the black colored annotation of start/end bases before and after each protein coding area.

Name: Diana Marquez  
course: I feel that this course is designed to make students learn to think critically. I have enjoyed this class so far.  
finding-articles: A research article is composed of sections such as methodology, limitations, introduction, study design etc that explicitly address not only the topic but the process of the study and how this process ended in the final results. A review article is more of a general overview and does not include detail into how the study was performed. Although a summary of the study may be included in a review article, it would not be as specific as compared to an actual research article.  
  
B. Yes I have reviewed the link above (How to Find Articles)  
  
C. At this time, I have to had any issues finding research articles  
Results-conclusions: This topic is still somewhat unclear to me. I would like to learn how to better recognize the difference between these two terms  
VitaminD: B. Yes, I found the assigned article  
C. Yes, I read the article and am comfortable understanding it  
Assembly-up-to: I have finished reading the power point  
Self-Assembly: I am comfortable with these properties and would like to focus more on the research part of the class as well as well as more complex structures  
Gene-up-to: II.A  
ThusFar: I do like these questionnaires- I like that you keep trying to check in to see how comfortable I am with the topics being covered.  
Gene comment: I am not completely comfortable with my understanding of the relationship between the gene and the genome. I would like for this relationship be spoken about more in depth during class as well as the coordinate system which I understand the basics but not as much as I would like to.  
Thanks for pressing : Submit  
What-is-a-gene?: The cell determines the beginning of a gene by using ATG as the starting codon

Name: Adithya Balu  
course: None  
finding-articles: None  
Results-conclusions: Results are the observed results of experiments or in other words, an observation. Conclusions are more superficial traits about how the experiment went.  
VitaminD: Yes  
Assembly-up-to: All but some areas could use some more thorough reading  
Self-Assembly: Outline of the readings could be provided by the teacher in a verbal fashion (not a lecture, but a little bit like a lecture).  
Gene-up-to: All but need some more reading until concepts are clear  
ThusFar: None  
Gene comment: Do activities concerning the topic at hand.  
Thanks for pressing : Submit  
What-is-a-gene?: Detection of the initiation codon AUG (ATG in DNA) and ends with a stop codon.

Name: Darius Saunders  
course: n/a  
finding-articles: A. Yes  
B. Yes  
C. No  
Results-conclusions: A conclusion is the final observation for something while a result is something that happened.  
VitaminD: B. Yes  
C. Yes  
Assembly-up-to: Finished  
Self-Assembly: n/a  
Gene-up-to: Finished  
ThusFar: None  
Gene comment: Practicing to understand how to use this program.  
Thanks for pressing : Submit  
What-is-a-gene?: A cell determines where a gene begins based on a start codon.

Name: Lamis Farah  
course:  
finding-articles: No issues in this area.  
Results-conclusions: From my understanding of the exercise we did in class, an observation is made and a conclusion can drawn from that observation. But conclusions can also be drawn without enough information, making them untrustworthy.  
VitaminD: I’ve found the article assigned to me and have focused primarily on the results section which has been pretty straight forward.  
Assembly-up-to: Halfway through part B  
Self-Assembly:  
Gene-up-to: Havent started  
ThusFar: When will TA sessions begin?  
Gene comment:  
Thanks for pressing : Submit  
What-is-a-gene?:

Name: Jared Mann  
course: Nothing in particular so far. I enjoyed the first day of class. Very thought provoking.  
finding-articles: No issues.  
Results-conclusions: With a result being an event or repercussion of something that can be observed, a conclusion is a assumption by the observer to tie the observation to something else, like an idea or theory. In research, results are used as premises which form a logical conclusion.  
VitaminD: Yes, my article is on the effect of vitamin D and calcium and is approached from a negative standpoint. This point being that consumption is unnecessary for preventing bone fractures.  
Assembly-up-to: Finished it.  
Self-Assembly: I understand these concepts, but perhaps tying more large scale reactions to molecular biological functions would be both interesting and beneficial.  
Gene-up-to: I.6  
ThusFar: I will try my best to keep my laptop charged, however power strips would be a huge help. Thanks.  
Gene comment: Reviewing the biobike software and running different functions would be a huge help for later assignments.  
Thanks for pressing : Submit  
What-is-a-gene?: It determines it with the (ATG or AUG) start codon as well as the stop codons of previous genes.

Name: Tom Mathew  
course: May I be able to change my interest later in the semester?  
finding-articles: I have no issues at all.  
Results-conclusions: Results in my definition would be the raw data that was collected during the experiment. The conclusion is considered when analyzing how the result is significant to the experiment.  
VitaminD: Yes, the article was very informative to discuss with classmates on the matter.  
Assembly-up-to: Read through the entire powerpoint  
Self-Assembly: I understand the metaphor in fact, the powerpoint was able to clearly talk about protein assembly very well.  
Gene-up-to: Skimmed though the article  
ThusFar: Finding power strips would be very useful. Also are you okay with us eating in class?  
Gene comment: How Bioinformatic tools can be used to locate the promoter region?  
Thanks for pressing : Submit  
What-is-a-gene?: A cell begins by recognizing a unique DNA sequence (promoter) which is where transcription will begin.

Name: Bharath Peddibhotla  
course: No.  
finding-articles: A. Research article is one that provides observations more or less based on experiments. Review articles, on the other hand, are an attempt for writers to describe the state of current research on a particular topic. They do not require an experiment.  
B. Yes  
C. I have yet to start on the Exam therefore I have no issues as of yet.  
Results-conclusions: Result is final outcome of an experimental process whereas conclusion is more or less a holistic approach to explaining the relationships that could be seen in a result or multiple results.  
VitaminD: B. Yes  
C. Yes, I am able to understand the article. There are certain figures/tables that are beyond my scope but I am able to understand the general concept.  
Assembly-up-to: I have viewed the powerpoint in its entirety.  
Self-Assembly: Concepts on a more micro-level regarding the chemistry of these interactions would help my understanding.  
Why do the glass beads move to the edge of the Petri dish, even though they are hydrophilic? Why don’t they remain in the center or around the central area and interact with the water molecules?  
Gene-up-to: II.C  
ThusFar: Yes, power strips would be very helpful.  
Gene comment: C. Fairly comfortable of the relationship between gene and genome.  
D. I am not as comfortable with this concept as in Part C, so I would like more of class time to be spent on this topic.  
Thanks for pressing : Submit  
What-is-a-gene?: Cell is able to determine the location of a gene based upon the sequence of nucleotides that make up that gene. This sequence is unique for each gene.

Name: Ashria  
course: N/A  
finding-articles: A. Yes, I see the difference  
B. yes  
Results-conclusions: Results are the recording of what occurred at the end of the experiment, while conclusion is taking those results and interpreting what it means in context to the experiment.... So I’d say pretty comfortable.  
VitaminD: B. Yes  
C. somewhat  
Assembly-up-to: All the way  
Self-Assembly: It lets me critically analyze and think  
Gene-up-to: not far at all  
ThusFar:  
Gene comment: An organized structure  
Thanks for pressing : Submit  
What-is-a-gene?: Well, haven’t gotten there just yet