## Associates of Science in Life Sciences

Overview: Students receiving an Associates of Science in the Life Sciences degree will be prepared to transfer into upper division courses to complete a Bachelors of Science degree in Biology, Zoology, or other professional degree programs in the life sciences. Courses establish the foundations in understanding cellular processes, evolution, ecology, plant and animal physiology and population studies.

Careers: Career pathways include pre-pharmacy, pre-medical, pre-veterinarian, biological and zoology research fields, wildlife and fisheries management, and a wide range of related fields.

Program Outcomes:

- communicate complex ideas by demonstrating an ability to gather and analyze data, construct evidence-based arguments and critically evaluate information,
- be able to apply critical thinking to address biological phenomena using scientific processes,
- demonstrate an understanding of the complexity and diversity of life,
- analyze and construct relationships between human activities and the environment.
- recognize the contributions of scientific knowledge in contributing to technological advances and advancement the human condition.

CCC to PSU Transfer Track					
Year 1			Year 2		
Credits	Fall Term	PSU	Credits	Fall Term	PSU
4	WR 121	WR 121	5	PH 201	***PH 201 &
5	CH 221	***CH 221 &			PH 214 (Lab)
		CH 227 (Lab)	5	MTH 251	#MTH 251
5	BI 211	BI 251	5	CH 241	*CH 331 &
					CH 327 (Lab)
			3	Core electives	
Credits	Winter Term	PSU	Credits	Winter Term	PSU
4	WR 122, 123 or	Writing 211,	5	MTH 252	#MTH 252
	227	222 or 227	5	##CH 242	*Sci. Elective
5	CH 222	***CH 222 &	3	Core electives	
		CH 228 (Lab)			
5	BI 212	BI 252			
3	Core electives				
Credits	Spring Term	PSU	Credits	Spring Term	PSU
5	CH 223	***CH 223 &	5	##CH 243	*Sci. Elective
		CH 229 (Lab)	4-5	## 200 level	Sci. Elective
5	BI 213	BI 253	6	Core electives	
4	COMM 111 or	Core elective-			
	140	Arts & Letters			

\*Organic Chemistry—satisfies requirement but does not transfer at 300 level credits unless students passes the ACS organic exam. Transfers as a combination of CH 331 and

CH 327 or CH 332 and CH 328. Students planning on completing the organic chemistry sequence are encouraged to take the entire sequence at the same institution.

\*\*\* Satisfies the requirements but transfer as 4 credits per course.

# may substitute MTH 243 and MTH 244

## at least 12 Science Elective Credits in G 201-G 203, PH 202 & PH 203 or CH 242 & CH 243.

91-92 credits

## Hello Polly,

My sincerest apologies for the lag time associated with my response on your email! With my surgery and the start of the term at PSU I have been a little behind. I've taken a look at the DRAFT AS Life Sciences degree proprosal/course planning you sent. It looks GREAT! Students who complete this AS degree will be in an optimal position to transfer to PSU and finish a biology degree in two years. I am truly excited that students at Clackamas Community College may have this AS degree as an option in the near future.

Best regards, Leah

On Fri, Sep 27, 2013 at 8:23 PM, Polly Schulz <<u>pollys@clackamas.edu</u>> wrote: Hi Leah,

Thank you for your previous positive response to our AS degree draft.

Attached is the CCC to PSU transfer track that we discussed earlier in the term with a couple of small name changes and addition of program outcomes. The course track is the same as before. I have added my response to your original questions below, hopefully this makes it more clear.

I need an e-mail from you that approves the track without the original questions as part of the documentation to go before our curriculum committee to approve the AS degree Life Sciences as a program. We would like to place the PSU "blessed" AS degree on our curriculum committee agenda for October, if at all possible.

I appreciate all of your support. Thanks you,

Polly Schulz

Lead Instructor Microbiology & General Biology Clackamas Community College

From: Polly Schulz
Sent: Friday, August 02, 2013 4:56 PM
To: Leah Tuor
Cc: Lilly Mayer; Tory Blackwell
Subject: Re: AS transfer degree from Clackamas Community College

Hi Leah,Thank you for your input.1. The core electives are the Arts/Letters/Social Science classes that meet Gen Ed

requirements for transfer to PSU as you guessed. We have a list from our registrar's office that will be part of the PSU AS degree transfer students. This is why we did not put it in the AS Biology schedule. If you have an updated list, I will pass it on.

2. These are speech classes. OSU and UO both required a speech class. If PSU does not require it for a Biology undergraduate degree than we can remove it. We were not sure, so left it on our list.

3. The courses I listed are all we currently offer at the 200 level in these disciplines. We don't offer any thing like a nutrition class listed in chemistry etc.... We do offer 200 level Zoology classes. We have had a few people take these (they have no biology pre-reqs) then decide they wanted to major in biology and take the majors biology their second year. Would these transfer as a science elective or is it strictly out of the biology field in physics, chemistry or geology? It would be great if you could clarify that just in case students ask.

Thanks for your help on this. I read your e-mail at our board meeting last Wednesday as part of our moving forward with this degree for fall term. We are particularly interested in encouraging students do go ahead with dual enrollment as part of this degree. Any information on that would also be helpful.

Thanks again. I look forward to hearing from you. Polly Schulz CCC Science dept.

On Jul 31, 2013, at 1:30 PM, Leah Tuor wrote:

Hi Polly,

I've looked over the AS Biology transfer degree draft you have. It looks really great, and students following this AS degree would be in an optimal position to start studies at PSU! I did have a few questions and potential points for consideration:

What specifically are "core electives" at CCC? Are these Arts/Letters/Social Science?
 Is COMM 111/140 a CCC requirement?

3) For the ## additional 12 credits in science requirements we will take anything that is 200 level+ in Chemistry, Geology, Physics. (I just wanted to point this out in the event CCC has other course offerings like CH 250 Nutrition, etc.)

Please let me know if you have any questions, or how I can be of further assistance. I'm excited for CCC's students to have this as an AS degree option!

Best regards, Leah

On Fri, Jul 26, 2013 at 11:41 AM, Polly Schulz <<u>pollys@clackamas.edu</u>> wrote: Hi Leah Clackamas Community College is in the process of setting up an AS degree in Biology for students who wish to transfer to PSU.

As part of this process, we would like you to review our suggested course schedule for a student wishing to transfer to PSU, majoring in biology. (I am attaching the suggested course list.)

We hope to have the degree approved for fall students. As part of this process, we need documentation that PSU advising has reviewed our suggest course list and it meets the typical student courses taken for students transferring into PSU as biology majors in their junior year.

Thank you for your assistance on this issue.

Polly Schulz Science department

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