2016-17 Academic Department Annual Report

Academic Department: Biological Sciences
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Annual Report Submission Instructions:

This Annual Report of your Academic Department is intended to serve as a summary of departmental activities over the past year and as an outline of plans for the upcoming year.

Please note that responses are limited to the space provided below for each prompt and do not need to be written in narrative form (you are welcome to use bullet points/lists, as appropriate).

Please submit your Academic Department 2016-17 Annual Report to your Dean via email by May 31st.

For your reference, prior year reports (2011-2015) can be found on the Instructional Support website, http://www.grcc.edu/instructionalsupport/departmentyearendreports. If you have any questions about the 2015-16 reports entered into WEAVEonline, please contact Sheila Jones, Dean of Instructional Support, sheilajones@grcc.edu or x4289.

Part I: Report on 2016-17 Progress

Part I is intended to provide a "big picture" overview of your department's activities during this past academic year. When completing the sections below, please consider the main points/highlights of each category.

Current Year Goals & Outcomes

This section asks you to provide details about the status of your department's goals and outcomes for this past year. Please limit your response to the space provided in the text boxes below.

Departmental Goals

1. Continuation of new course development – *Two new non lab courses, BI 110 and BI 118, were developed to meet MTA needs and will be offered beginning Fall 17. One other course, BI 109 was developed, but further work will be done to meet gen ed requirements.*
2. Updating testing rooms signage and surveillance – *will continue to work on in 2017/18*
3. Continued work on Engaged Department Initiative grant – *work on grant was successfully completed in spring of 2017 with wrap up celebration at Aquinas College*
4. Continue Community Science Day- Increase departmental participation – *Community Science Day was held again with increased college, student, and community participation*
5. Continue refining student advising practices – *Science advising days and Biocafe advising series were slightly modified*

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BI 101 Goals and Accomplishments

1. Work as a team to further edit the lab investigations to better meet the needs of the non-major biology student.
   - *Work continued, will make major revisions in 2017/18*
2. Continue updating the BI 101 course in the areas of teaching strategies/learning activities and assessment consistency.
   - *Slight changes were made to the common final, and new teaching strategies and activities are continuously shared in Blackboard content system*
3. Investigate a new assessment project.
   - *Preliminary discussions for potential change in 2017/18*
4. Increase the use of critical thinking questions in assessments throughout the Biology 101 sections.
   - *Not specifically accomplished*
5. Increase student participation in academic service learning.
   - *Accomplished through participation in Community Science Day*

BI 117 Goals and Accomplishments

1. Continue assessment project on tonicity
   - *Completed data collection, engaged in best practices group discussion with all BI 117 lab instructors, created new teaching strategy for tonicity to be implemented beginning summer 2017.*
2. Create and implement nature of science lab exercise in all sections
   - *This goal will be moved to the 2017-2018 plan.*
3. Continue revising the 117 lab curriculum
   - *Created accessible versions of all common BI 117 student performance objectives (SPOs), updated all common lab exams and made refinements to most common lab SPOs.*
4. Created a new urinary physiology lab activity to be beta-tested summer 2017.

BI 121/122 Goals and Accomplishments

1. Acquire and dissect an additional wet cadaver.
   - *Completed Fall 2017 and being utilized by all sections of BI 121 and 122.*
2. Change textbooks to the OpenStax OER
   - *Completed summer 2016.*
3. Facilitate the transition to the OER for adjunct faculty
   - *Completed over the 2016-2017 academic year.*
4. Investigate digital dissection supplement options for complementing the cadavers currently used in lab.
   - *Investigated possible option of virtual dissection table with Allied Health programs, but decided it was too costly and offered no further benefits than the digital resources already available through current publishers. Working on procuring additional plastinated limbs through Perkins funding.*

BI 127 Goals and Accomplishments

Goal for 2016-2017	Accomplishments against Goals
• Continue common final exam in BI127 to assess student learning objectives and identify areas for improved instruction	Continued to monitor data across all instructors and all sections of BI127 Microbiology and to assess impact of instructional changes for this ongoing goal
• Assess availability and potential utility of an open-source textbook for BI127 Microbiology	Openstax Microbiology, a free, open-access resource, was selected as the textbook for BI127 Microbiology starting Fall 2017
• Evaluate different format options as an opportunity to reduce cost of the lab manual in BI127 Microbiology	A custom version of the lab manual was adopted for use starting Winter 2017, reducing cost to students by approximately 65%

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BI 151 Goals and Accomplishments

Goal 1: Identify specific topics currently taught within BI 151 to confirm and enhance how the course compliments the Biology curriculum.
Status: Complete

Goal 2: Analyze data from the BI 151 lab assessment project and make adjustments as warranted.
Status: Complete (this is a multi-year project).

Goal 3: Look for some new media pieces to replace older video pieces. Visuals can help supplement the lecture material and put it in context of nature.
Status: Complete (New media pieces were implemented in both the lecture and lab)

Goal 4: BI 151 Pre-lab Videos (captioning).
Status: Incomplete - Pre-lab videos have mostly been reproduced. However, two are still in the editing phase. The captioning department would like the videos to be completed so they can avoid re-captioning. The rest of the videos (8) are ready to be sent for captioning.

BI 153 Goals

1. Continue to market and maintain at least one full section each semester.
    - *The course was advertised through posters and announcements in the BI 151 course. Two sections were run in the fall of 2016 and 1 in winter of 2017. Enrollment seems to be doing well for fall of 2017.*

BI 154 Goals

1. Increase enrollment and have two permanent time slots for biology 154 on the books.
    - *Only one section of BI 154 ran each semester, but they were full.*

2. Complete new SPO's, student work sheets, and several new student experiments.
    - *Completed new SPO's 550-question work sheets designed to guide students through the textbook (no OER available), and several new behavioral experiments with Monarch migration and physiology that will be incorporated into the current Monarch Behavior Laboratory.*
3. Room 333 Calkins is undergoing a complete makeover in order to offer students a more receptive and active learning environment.
    - *Continuing with the makeover of room 333. Expected to be completed during the Fall Semester of 2017.*

BI 205 Goals

1. Continue to market the course. It is heavily dependent on student interest in BI 153 and BI 154. If those courses have low enrollment then there is not a big enough pool of GRCC students to draw from. I will work with PCCI to recruit students from the other consortium schools. These schools make provide for a larger pool of people to draw from.

    - *Course was marketed, but failed to fill for Summer 2017*

BI 215 Goals

- Introduce two new laboratory activities, one dealing with soils and the other with plant identification. - *This course did not run in 2016/2017*

BI 232 Goals

1. Update homework assignments.

    - *All 16 homework assignments were evaluated and six of them were updated. This included a homework assignment that was tied to instructor's FPE assessment project.*

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Departmental Professional Development

In this section, please provide details about your department's emphasis for professional development during this year. Please limit your response to the space provided in the text box below.

For departmental professional development this year the Biology department completed the following:

- In the Fall we took an afternoon and collaborated as a department on curriculum development. Many of our courses were up for revision in the curriculum development process, and we were developing three new courses and a new pre-major, so this was a great use of our time sharing knowledge and working together to complete these tasks. We learned from each other and accomplished a lot at the same time.
- In the Winter we invited Meegan Willi to our department to train us on accessible documents and PowerPoints, and to talk about accessibility in general. This was a very useful training and work session that all of us will be able to apply to our teaching.

Departmental Advising Plan & Outcomes

In this section, please describe your department's advising plan and outcomes for this year. Please limit your response to the space provided in the text boxes below.

The Biological and Physical Sciences department hosted Science Advising Days in the Fall 2016 semester. This was a two-day event, aimed at advising students about GRCC science coursework, options, and sequence, and also at assisting with transfer and career advice. Every faculty member spent about two hours working the event. GVSU and our Counseling Department also had representatives at this event to serve students.

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During the Winter 2017 semester the Biology Department collaborated with the Biology Learning Center to offer the Biocafe Advising series, which was a weekly advising event that took place in the Biology Learning Center. Each week a different professor from the Biology Department spent an hour in the Biology Learning Center discussing with students various topics related to biology, advising, research, transferring, etc. We also dedicated one day to GVSU representatives and one day to a member of our Counseling Department. This event was very well received by students.

Program Accreditation Updates

In this section, please provide details regarding any program accreditation or re-accreditation that occurred this past year, if applicable. Please limit your response to the space provided in the text boxes below.

N/A – the Biology Department does not have any programs.

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Perkins & Key Performance Indicators

In this section, please discuss Perkins and Key Performance Indicators for programs (total student enrollment, demographic profile, new students, student progress rate (transferred, graduated, enrolled), number of graduates, graduate employment rate, time to completion), if applicable. Please limit your response to the space provided in the text boxes below.

N/A

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Learning Outcomes Assessment Data & Findings on Past Year's Projects

In this section, please summarize your department's assessment work for this year, outlining the Program Learning Outcomes (PLOs) or Institutional Learning Outcomes (ILOs) assessed, the assessment measure, the findings, and the improvements planned based on the findings. Please limit your response to the space provided in the text boxes below.

The Biology Department does not have any programs, and we do not participate in any department-level learning outcomes assessment. We do however conduct individual and course-level assessment projects. Several of those course level assessment projects are summarized below.

BI 101 Assessment Project

The objective of the project was to determine if we could use Mastering Biology, an online homework tool, to improve student understanding of key biological critical thinking concepts. We have been tracking student performance on key concepts in all sections of BI 101 through the use of a common final exam. Specifically we have tracked ten final exam questions which have been identified as key critical thinking questions. We have been using the common final in its current form since Fall 2011, so we have four semesters worth of data that are pre-Mastering Biology (Fall 11-Winter 13) to compare to Fall 13 through Fall 16, which are the semesters in which Mastering Biology has been used to target these concepts. (We actually first began using Mastering Biology during the 2012-2013 academic year, but with no specific focus on these critical thinking concepts.) Prior to the beginning of the Fall 13 semester, and throughout the project, the entire BI 101 faculty have been briefed on these concepts and advised to structure the Mastering Biology assignments to specifically address these concepts. The data from Fall 13-Fall 16 so far shows that student performance on these concepts has been mixed since our efforts with Mastering Biology began (data is attached). Performance on some questions has improved, but on others it has declined, been inconsistent, or not changed. We also have been tracking 4 additional questions (not specifically identified as critical thinking questions) that students typically perform poorly on, and performance on these questions has been mixed as well.

Based on these results we will consider several changes to address student understanding of these concepts. We are in the process of deciding whether we want to continue using Mastering Biology. We may possibly replace it with another online homework system, or make its use optional. If we continue to use it, we need to explore how we can better address these difficult critical thinking concepts through the features of the program. We also may consider specific learning activities in class to address these topics. If we do not use Mastering in the future, we will likely modify the assessment project to compare our new strategy for addressing these concepts versus our past strategies.

BI 117 Assessment Project

To recap the goals of this assessment project for the 2016- 2017 academic year (keeping in mind this is an on-going, multi-year, course-wide project):

a. Continue data collection regarding the percentage of BI 117 students who demonstrate achievement of the tonicity learning objective. - Unfortunately, despite repeated requests, data was not submitted for three of the nine lab sections last fall (Fall 2015). This equates to one-third of our fall student population being excluded from last year's data set. Thus, if we are to derive meaningful conclusions from this project, another round of data collection is certainly warranted and required.

b. Initiate a broader discussion with the BI 117 adjunct instructors regarding best practices in the lab. We will use this Assessment of Student Learning project as a platform for us, as faculty, to come together and share best teaching practices.

c. Utilize the `best teaching practices' discussion to devise an instructional method and instructional materials on tonicity. The designated pedagogical modification will then be implemented course-wide across all BI 117 lab sections in the 2017-2018 academic year, and student performance will be evaluated.

During fall semester 2016, the two common assessment questions on osmosis and tonicity were administered in all nine sections once again. Student responses were gathered from all nine sections. See attached tables. Analysis of the data from fall 2016, as well as previous semesters (fall 2015, winter 2016) illustrate that students are performing similarly semester to semester on the common assessment questions, regardless of the instructor. (See attached data table.) To summarize, the percentages of correct responses from the entire BI 117 student population are listed as follows for questions #33 and #34, respectively:

Common question #33: 61.03% Fall 2015, 65.57% Winter 2016, and 64.49% Fall 2016

Common question #34: 62.50% Fall 2015, 70.75% Winter 2016 and 71.43% Fall 2016

This winter 2017, current and previous BI 117 lab instructors were invited to participate in a 'best teaching practices' discussion for tonicity. Nearly everyone participated, and they eagerly and openly shared their instructional practices for introducing this topic to students. Several instructors even volunteered materials for the group. The most interesting and validating point learned as a result of this group exchange was all BI 117 lab instructors have nearly parallel methodologies for introducing this concept (of tonicity) and engaging students during a pre-lab introduction. (Note that students complete the *same activities during* the lab and are *administered the same assessments*.) The data shows that regardless of instructor, time of day or semester, students perform about the same on the assessment of this concept. Therefore, since the instructors approach delivery of material in such similar manners it is quite logical that next steps are to further engage the students with the material during lab time and to encourage review at home.

In an effort to achieve this, the third goal of this year's assessment plan was met. The `best teaching practices' discussion was utilized to devise an instructional method to further engage students during lab time and promote review outside of class time. The BI 117 lab instructors collectively agreed upon an additional activity to be added to the laboratory and student performance objectives (SPOs). Diagrams of blank beakers will be added to the SPOs with instructions to construct drawings in the beakers of the three fake cells set-up in lab and their environments; label the sugar and water concentrations in the intracellular and extracellular environments; label the movement of solvent if any; label the tonicity. This activity will provide students the opportunity for more active engagement during the lab task; rather than looking at a demo and answering a few questions they will be asked to sketch diagrams in their lab notes. In addition, once they have sketched diagrams and been instructed to record more detailed notes about tonicity while viewing this demo, they will leave lab with much more detailed information for review at home during preparation for the unit exam.

BI 127 Assessment Project

In this ongoing assessment project, a common final exam is used to assess student understanding of key concepts in the course content, student critical thinking skills, and the effect of instructional interventions. Current data suggest students demonstrate a good measure of critical thinking skill. Initial data suggest recent instructional interventions are improving student learning in two areas, but additional data are needed to clearly determine this.

All BI127 Microbiology students take a common, cumulative final exam at the end of the course. The common final exam is given by all instructors in all sections of the course. The common final exam consists of 64 multiple choice questions, each with 5 possible responses. These questions typically assess knowledge and comprehension of key concepts in the course content. The key concepts connect to the Course Learning Outcomes (CLOs) stated in the BI127 Curriculog (Course Review and Revision) document. The common questions were developed prior to the 2012-2013 academic year, with contribution from and input by all lecture instructors for the course, including both full-time and part-time instructors.

Included in the 64 common questions are 12 questions that involve thinking and reasoning skills. Critical Thinking Skills are the main Institutional Learning Outcome (ILO) associated with the BI127 course. These 12 questions typically involve application, analysis, interpretation, or evaluation using the key concepts of the course. In both BI127 lecture and lab, critical thinking is assessed at many points and using several methods. These 12 final exam questions are just one small point at which Critical Thinking Skills are assessed within the whole BI127 course.

The purpose of the common final exam in BI127 is:

1. to promote consistency of instruction and alignment of course content with the Curriculog document among all BI127 instructors
2. to assess and improve student understanding of key concepts in the course content, relating to the CLOs
3. to assess and improve student critical thinking skills, the major course ILO

Overall performance – To date, the BI127 common final exam has been given to 34 lecture sections (1099 students) taught by 4 different instructors. Overall student performance on the common final exam is good, with an average score of 77.7%. This suggests that students learn and retain a significant amount of information about key concepts of the course content. So far, no obvious differences have been noticed across sections or instructors.

Critical Thinking – Student performance on the 12 thinking and reasoning questions averaged 76.4% correct (range 52-98% correct), which is very close to the success rate for all other (non-Thinking and Reasoning) common final exam questions (78%). For three of the 12 thinking and reasoning questions, $\geq$90% of students responded correctly (91, 94, & 98% correct) and for 5 of these questions, $\leq$70% of students responded correctly (69, 69, 67, 63, & 52% correct). Though the success rates on the thinking and reasoning questions span a broad range, this range is similar to that for the other common questions, and demonstrates a good measure of critical thinking skill.

Instructional Intervention – The effect of instructional changes on two topics was assessed previously. For both topics, student performance improved, as evidenced by a reduction in the number of students missing questions on those topics on the common final exam (see Assessment Report for 2015). Those instructional changes continue to be implemented in all sections of the course.

During Fall 2015, additional topics for instructional intervention were identified and specific changes to instruction were developed. These changes were implemented in lecture sections of the course beginning Winter 2016. The effect of these instructional changes has only been evaluated in 4 sections. Initial data suggest improvement. However, sections can vary greatly, so more data are needed to see if these interventions are making a real difference.

Next Steps

The BI127 common final exam will continue. As this ongoing assessment project proceeds, student performance will be monitored to determine:

- whether current changes in instructional methodology enhance student learning
- which content areas and/or CLOs are in need of improved instruction

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BI 151 Assessment Project

Problem Identified:

Students struggle to demonstrate the ability to articulate a valid scientific hypothesis and prediction given a set of observations.

Measure of Current Student Learning:

To obtain preliminary data, students were asked two questions related to developing hypothesis in lab. These were graded on being valid or not valid (no partial credit). All instructors reported the individual student scores.

Proposed Solution:

Each weekly laboratory exercise challenged students to develop multiple valid scientific hypotheses and predictions given a set of observations. Instructors worked with each student emphasizing the proper criteria. Students were asked to develop "non-scientific" hypotheses (not falsifiable) in an effort to get them to understand the difference.

Proposed Measure of Effectiveness:

To monitor student progress of this skill, we included such questions on the lab midterm, exit quizzes and the final exam. We measured the success rate in a fashion that provides weekly feedback on our pedagogy. Weekly exit quizzes were the source of assessing weekly improvement. The question set provided appeared on the midterm lab exam and a similar question set on the final lab exam. We used that information to set a baseline, as well as a measure for improved student understanding.

Alignment of Assessment Project with Student Learning Outcomes for BI 151 Course Curriculum:

Upon completion of BI 151 it is essential for students to demonstrate the ability to think scientifically, as well as to exhibit a true understanding of the process of science. Developing valid scientific hypotheses and predictions are essential components in these learning outcomes. Furthermore, these skills provide students the foundation for future courses as well as careers in the sciences.

Results of Assessment

Table 1: Hypothesis/Prediction development data collected from BI 151 students. Data is collected to determine if students improve their ability to articulate a valid scientific hypothesis and prediction based on a given set of observations, over one semester.

Semester	Exam	Scientific Hypothesis (% correct)	Scientific Prediction (% correct)
Fall 2014	Quiz 1	41.25	12.75
Fall 2014	Mid-term	82.45	70.36
Fall 2014	Final	85.87	75.23
Winter 2015	Quiz 1	48.36	10.71
Winter 2015	Mid-term	85.96	78.70
Winter 2015	Final	88.51	81.13
Fall 2015	Quiz 1	73.51	15.23
Fall 2015	Mid-term	83.45	74.34
Fall 2015	Final	86.78	78.57
Winter 2016	Quiz 1	47.53	15.00
Winter 2016	Mid-term	86.20	77.37
Winter 2016	Final	88.55	78.56
Fall 2016	Quiz 1	65.1	30.54
Fall 2016	Mid-term	87.45	80.89
Fall 2016	Final	90.2	85.65
Wnter 2017	Quiz 1	61.72	32.04
Winter 2017	Mid-term	85.34	78.7
Winter 2017	Final	*	*

*Data not collected yet

Although students have improved a great deal in developing hypotheses and predictions, it is believed we can improve even more. We will continue to stress the importance of developing valid scientific hypotheses and predictions, and strive to improve our pedagogy.

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Part II: Plan for Upcoming Year

Part II is intended to provide a guide for your department's plans for the upcoming year with regards to the following: Operational Goals and/or Plans, Curriculum Goals and/or Plans, Learning Outcomes Assessment Plans, and Advising Plans. When answering the questions or completing the sections below, please consider the main points/highlights of each category.

A. Operational Goals and/or Plans

What are your departmental goals and plans for 2017-18?

Departmental Goals

1. Updating testing rooms signage and surveillance
2. Continue Community Science Day

BI 101 Goals

1. Work as a team to further edit the lab investigations, adding a new lab and changing another one.
2. Investigate a new assessment project.

BI 110 Goals

1. Design this new course to promote critical thinking concerning the growing presence of biology in society and to teach students to be scientifically literate citizens with a greater understanding of the science as a process.
2. Integrate case studies into each unit that focus on the main concepts and to facilitate critical thinking and real world application.
3. Choose resource materials/ textbook to supplement course content and goals.
4. Develop teaching ancillaries to assist students in learning the basic biological knowledge of DNA, molecular biology and physiology to discuss the importance and ethical impact of the use of biology in society.
5. Design activities, case studies and ancillaries that can be used in an online version of the course.

BI 117 Goals

1. Continue assessment project on tonicity – implementation of new teaching strategy.
2. Create and implement nature of science lab exercise in all sections.
3. Eliminate the common final exam; create a set of common assessment questions to be administered as part of the last unit exam in lecture.
4. Develop an online section of BI 117 for the lecture portion of the course.

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BI 118 Goals

1. Develop course content.

BI 121/122 Goals

1. Discuss whether or not to develop common assessment questions for last unit exams in BI 121 and/or 122.
2. Acquire new plastinated specimens for labs to enhance our current collection (possibilities we are exploring: superficial dissection of the lower limb muscles, deep dissection of the lower limb muscles, vertebral column/spinal cord dissection).

BI 127 Goals

1. Monitor adoptions of new lecture textbook and new custom lab manual to assess impact on student acquisition and use
2. Introduce a new Hand Washing lab exercise in BI127 Microbiology lab

BI 151 Goals

1. Analyze data from the BI 151 lab assessment project and make adjustments as warranted.
2. BI 151 Pre-lab Videos (captioning).

BI 153 Goals

1. Update two Camtasia videos that students use for study and review.

BI 154 Goals

1. Secure two permanent time slots for zoology as describe above for 2017-2018

2. Make my course far more interactive, with student homework, student reports, student discussion of lecture/laboratory material.

3. Finish the room makeover that I began in room 333 to make it more interactive and appealing.

BI 232 Goals

1. Look for some new media pieces to supplement the material presented in class. Visuals can help some students process and retain the information better.

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What new information from external sources has influenced your planning for next year?

N/A

Are your goals targeting any Perkins or Key Performance indicators? If yes, please explain.

No

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What resources do you need to accomplish your departmental goals for the upcoming year?

Nothing outside of resources already available.

Do you need support from other departments to accomplish these goals? If yes, please explain.

Other departments will work with us on Community Science Day.

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Do you need professional development in order to accomplish these goals? If yes, please explain.

No

For each of your departmental goals/plans/projects, please list the name of the lead faculty member(s) involved.

Departmental goals – all members of the department participate, although Jan Colvin, Leigh Kleinert, and Sarah Krajewski lead Community Science Day

BI 101 Goals – Jan Colvin, Tim Hoving, Sarah Krajewski, Tim Periard
BI 110 Goals – Sarah Krajewski
BI 117 Goals – Leigh Kleinert and Kate Kryger
BI 118 Goals – Todd Tiano
BI 121/122 Goals – Greg Forbes, Leigh Kleinert, Paul Krieger, Kate Kryger, and Tim Periard
BI 127 Goals – Bob Leunk, Kate Kryger
BI 151 Goals – Todd Tiano
BI 152 Goals – Greg Forbes
BI 153 Goals – Pam Laureto
BI 154 Goals – Matt Douglas
BI 232 Goals – Pam Laureto

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For each of your departmental goals/plans/projects, please provide a brief timeline for completion.

All stated goals will be completed over the 2017/18 academic year, with most of the work taking place in the Fall and Winter semesters.

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B. Curriculum Goals and/or Plans

What are your departmental curriculum development goals and plans for 2017-18?

2017/18 curriculum goals are to:

- Implement new BI 110 and BI 118 courses and new General Biology pre-major
- Possibly modify BI 109 to meet general education requirements
- Discontinue BI 215

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Review of Department's Curriculum Transferability

Please note: this section should be completed by all SAS Departments, Business, and CIS.

Using transferability data provided by Instructional Support, please summarize your perceptions of how courses in your department transfer to our four-year university partners and how this understanding will impact your curriculum goals for the upcoming year.

Based on the transferability data, our courses transfer for the most part how I would expect them to. I did see a couple of discrepancies:

- BI 121 and 122 actually transfer directly to GVSU as credit for BMS 250 and 251, in addition to being just general credit
- BI 153 transfers directly to WMU as BIOS 2020, not general credit
- BI 232 transfers directly to WMU as BIOS 2500, not general credit

I think we should work with FSU to get more of our courses to transfer directly. I'm not sure that requires us to change anything in our courses, but maybe to have conversations about why so many courses are transferring as general credit.

We also will need to work with our 4-year partners to see how our new courses, BI 110 and BI 118 will transfer.

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What new information from external sources has influenced your curriculum development planning for next year?

None

Are your curriculum development goals targeting any Perkins or Key Performance Indicators? If yes, please explain.

No

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What resources do you need to accomplish these curriculum development goals?

Nothing additional

Do you need support from other departments to accomplish these curriculum development goals? If yes, please explain.

No

For each of your departmental curriculum development goals/plans/projects, please list the name of the lead faculty member(s) involved.

BI 110 – Sarah Krajewski
BI 118 – Todd Tiano
BI 109 – Greg Forbes
BI 215 – Pam Laureto and Tim Hoving

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For each of your departmental curriculum development goals/plans/projects, please provide a brief timeline for completion.

This work will be done primarily in the Fall of 2017.

C. Learning Outcomes Assessment Plan for 2017-18

In this section, please outline your department's plan for learning outcomes assessment work for the upcoming academic year, outlining the Program Learning Outcomes (PLOs) or Institutional Learning Outcomes (ILOs) that will be assessed as well as the assessment instruments/measure that will be used. Please limit your response to the space provided in the text boxes below.

The Biology Department does not have any programs or department-level assessment projects. We have individual and course-level assessment projects, but the plans for these will be developed over the summer of 2017 and won't be available until Faculty Performance Evaluation plans are written in September 2017.

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D. Departmental Advising Plan for 2017-18

In this section, please outline your department's advising plan for the upcoming academic year. Please limit your response to the space provided in the text box below.

In the upcoming year we will likely continue advising the way we have the last two years, by holding Science Advising Days in the Fall of 2017, and again holding the Biocafe Advising Series in the Biology Learning Center during the Winter of 2018.

Part III: 2016-17 Faculty & Staff Accomplishments/Awards

Part III is intended to provide a space to share the accomplishments, awards, and/or accolades achieved by faculty and staff in your department during the course of this past year.

Sarah Krajewski and Lauren Elliott authored a new 3 credit, non-laboratory Biology Course that meets the General Education requirements. The course, BI 110 - Biology for Society, will be offered to GRCC students for the first time in the Fall 2017 semester.

Jan Colvin, Leigh Kleinert, and Sarah Krajewski successfully completed the 18 month Engaged Department Initiative Grant.

Jan Colvin, Leigh Kleinert, and Sarah Krajewski designed and organized the 2nd Annual Grand Rapids Community College Community Science Day.

Jan Colvin, Leigh Kleinert, and Sarah Krajewski designed and organized the 2nd Annual Academic Service Learning Recognition Ceremony for students in the Biological Sciences Department.

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Tim Periard

1. Conference Organizer for the Michigan Community College Biologists (MCCB) Fall 2016 Conference at GRCC
2. MCCB Executive Board - Nominations Chair
3. Successfully completed GRCC's OHCC training
4. Planned and executed a frog dissection event at GRCC's Community Science Day
5. Participated in GRCC's winter 2017 Open House
6. Participated in GRCC's New Faculty Institute
7. Gave a presentation to GRCC's Biodiversity Club (April)

Todd Tiano

1. Course development: I developed a 3 credit non-lab science course, BI 118 Environmental Science. We are offering two sections in the Fall 2017 semester. The sections will be offered MW 7:45am-9:15am and TTh 1:00pm-2:30pm.
2. Adoption of OpenStax OER text in BI 151 Cells, Molecules & Genes.

Bob Leunk

1. Mentored a new adjunct instructor for BI127 Microbiology laboratory
2. Edited lab learning objectives and lab notebook questions
3. Provided guest lecture on the History of Plague for a History department seminar, HS293 – The Black Death
4. Collaborated with Michigan State University College of Human Medicine faculty to host and facilitate 2 Microbiology Labs for Year 1 medical students at GRCC
5. Collaborated with Michigan State University College of Human Medicine and Spectrum Health to plan and sponsor a Your Health Lecture on Immunizations, for GRCC students and the community

Kate Kryger

1) Served as the GRCC's Representative to the Association for Women in Science, West Michigan chapter (AWIS-WM)
2) Assisted with the organization and planning of the Grand Rapids, MI, March for Science
3) Participated in the West Michigan President's Compact Committee (WMPCC) as a GRCC team member
4) Served on the Screening Committee for the Assistant Director of Student Life & Conduct position
5) Served on the Student Leadership Awards Committee
6) Served on the College Action Plan (CAP) 1.3.5 Team
7) Hosted 'Baby Got Vax' for Community Science Day; and developed partnerships with Student Life, the Education and Childhood Development Department, and the Kent County Health Department Immunization Program
8) Hosted two WELL Wednesday Workshops at GRCC: "Strategies for Obtaining Strong Letters of Recommendation, Part I" and "Strategies for Obtaining Strong Letters of Recommendation, Part II"

Thank you for completing this report. Please submit to your Dean via email.