

Evidence of Teaching Effectiveness

Court Campany

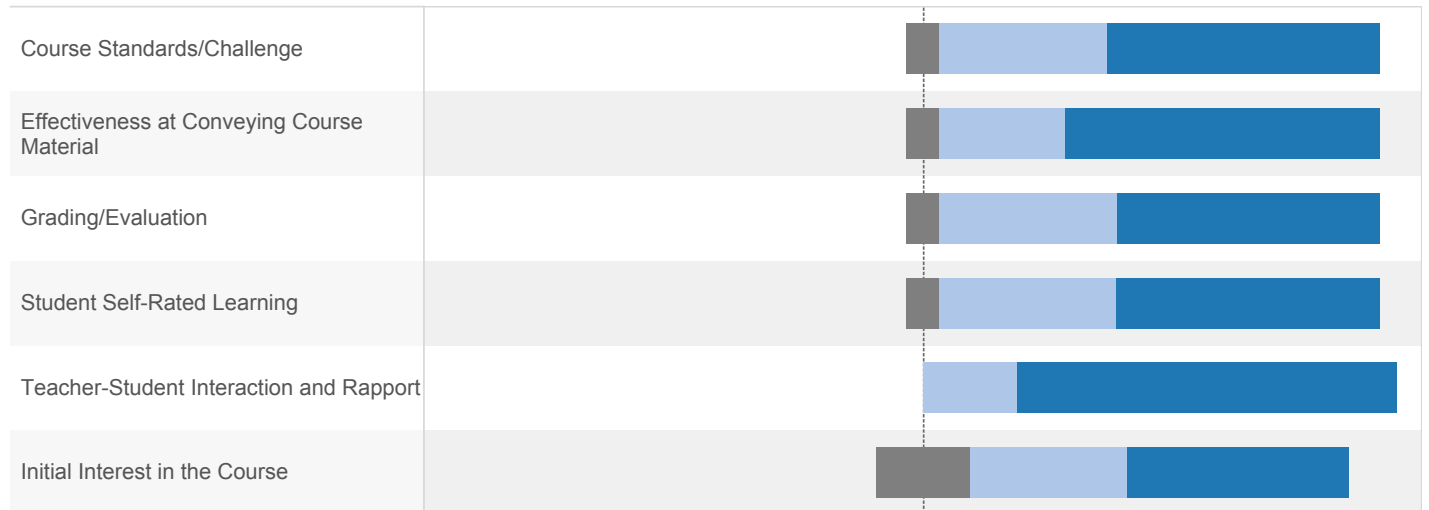
This document provides evidence of my teaching effectiveness as an instructor at Colgate University. Included are two performance metrics of effectiveness generated from student evaluations for each course and lab section I have taught. Ecosystem Ecology is an advanced course that I fully developed and Evolution, Ecology, and Diversity is a team taught introductory biology course. I have also attached a syllabus for both Ecosystem Ecology and Evolution, Ecology, and Diversity.

Teaching Experience

- Instructor: Evolution, Ecology, and Diversity Laboratory (Fall 2017)
- Instructor: Ecosystem Ecology (Spring 2018)
- Instructor: Ecosystem Ecology Laboratory (Spring 2018)
- Instructor: Evolution, Ecology, and Diversity (Fall 2018 – team taught)
- Instructor: Evolution, Ecology, and Diversity Laboratory (Fall 2018)
- Instructor: Evolution, Ecology, and Diversity (Spring 2019 – team taught)
- Instructor: Evolution, Ecology, and Diversity Laboratory (Spring 2019)

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| Term Fall 2017 | Instructor CAMPANY Courtney .. | Course Title Evoln, Ecol, Diversity .. | Course/Section BIOL 181L E | Enrollment 15 | Surveys 15 |
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Dimensions of Teaching

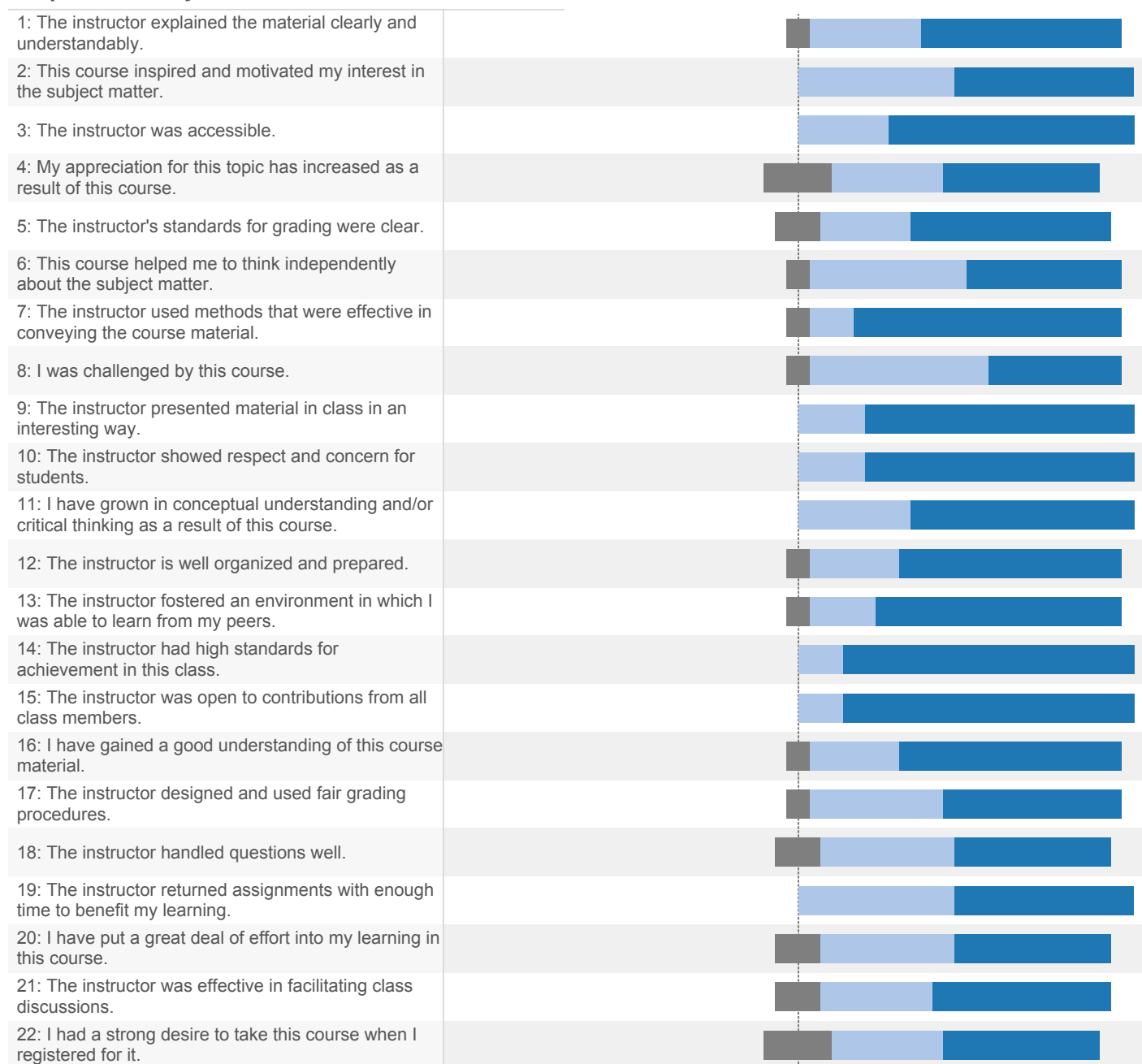


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| Term Fall 2017 | Instructor CAMPANY Courtney .. | Course Title Evoln, Ecol, Diversity .. | Course/Section BIOL 181L E | Enrollment 15 | Surveys 15 |
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Response Analysis: Questions 1 - 22

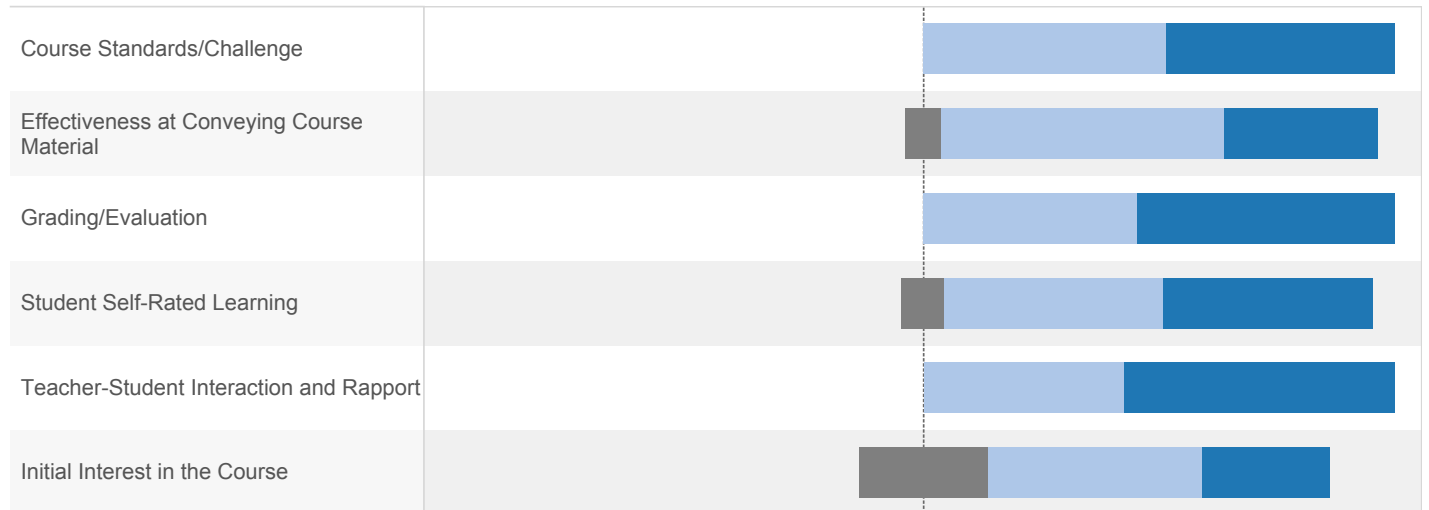


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| Term Spring 2018 | Instructor CAMPANY Courtney .. | Course Title Ecosystem Ecology | Course/Section BIOL 359 A | Enrollment 15 | Surveys 11 |
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Dimensions of Teaching

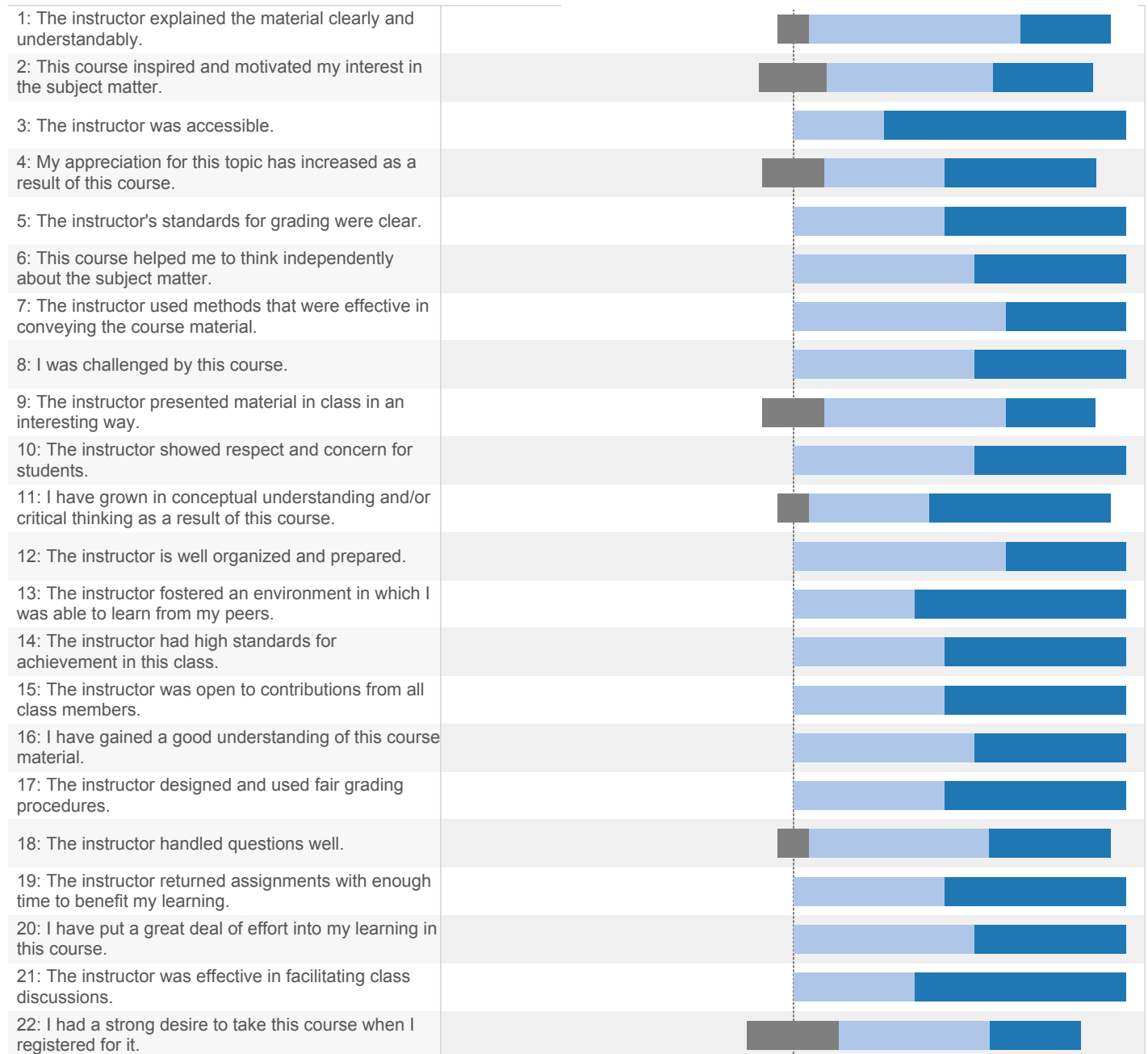


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Response Analysis: Questions 1 - 22

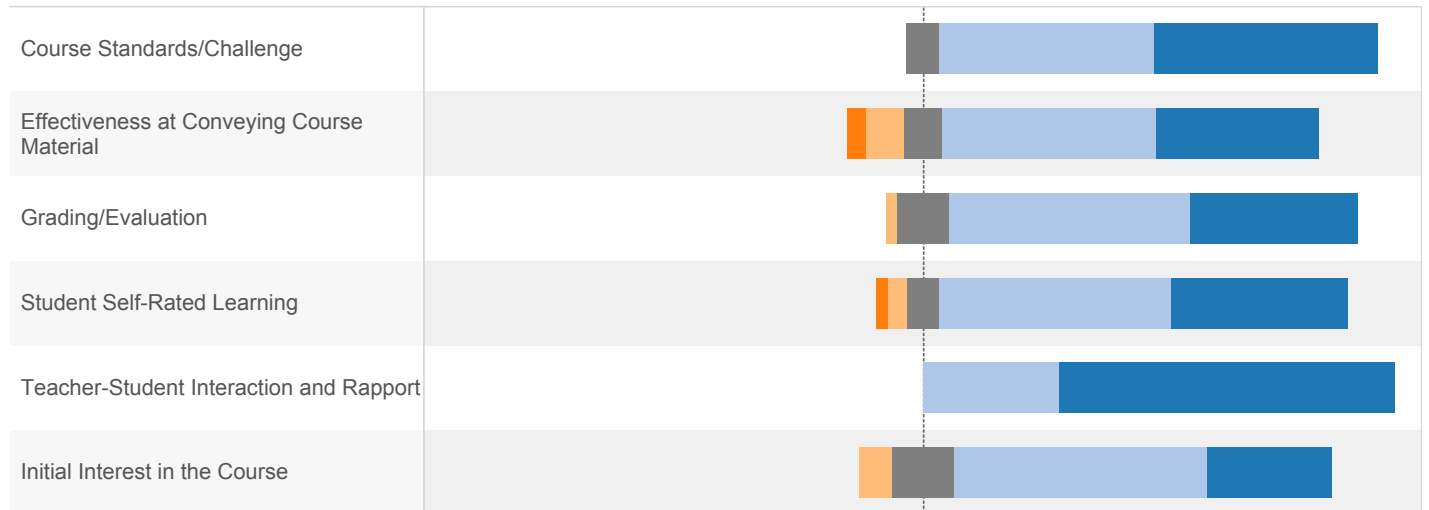


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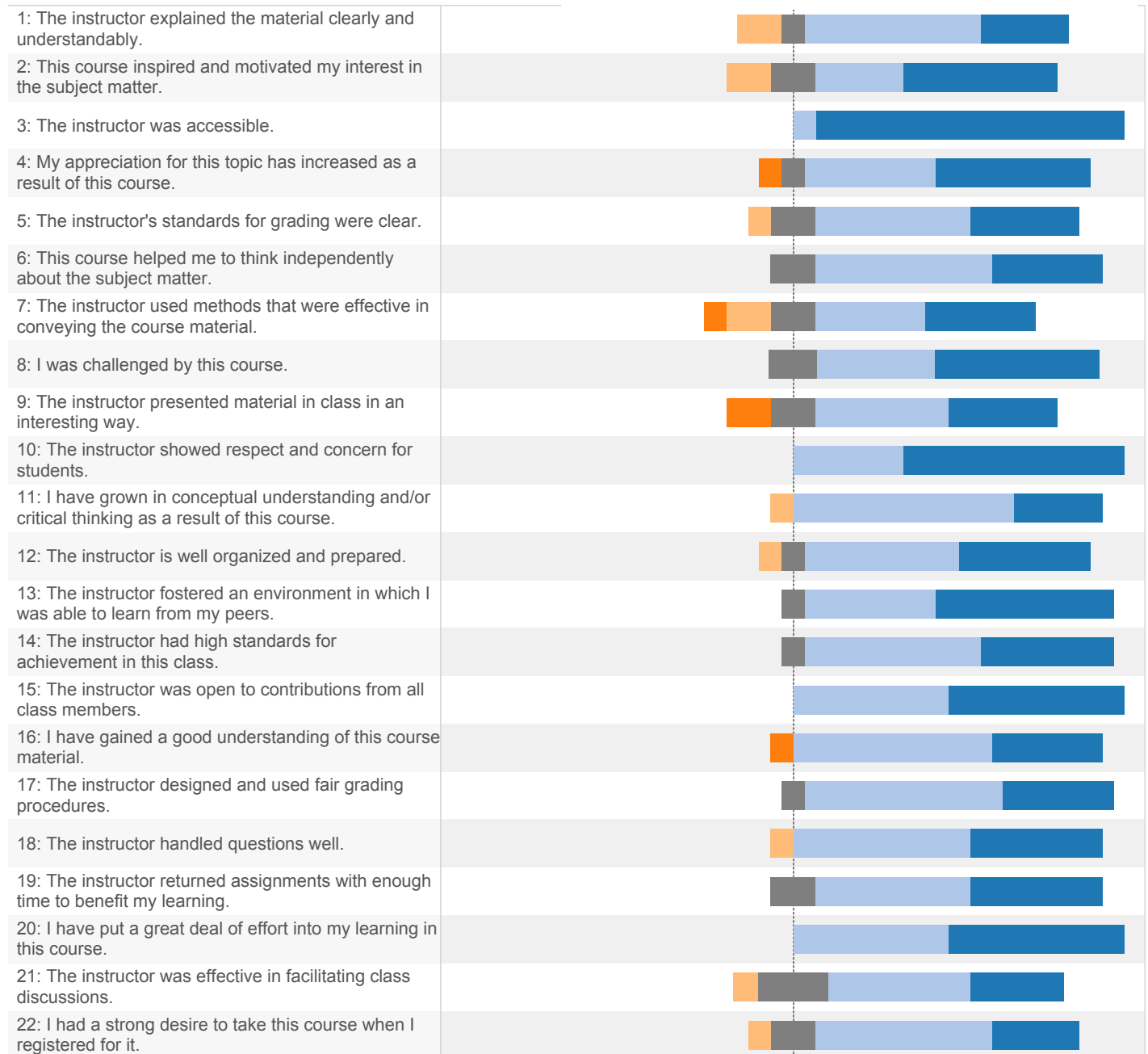


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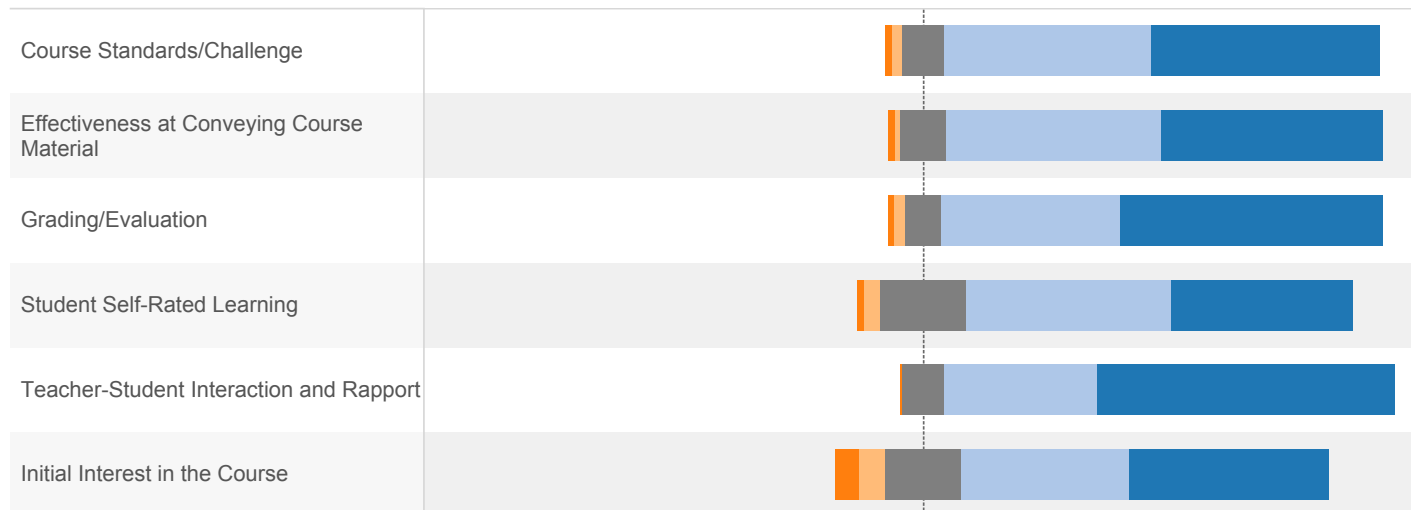


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Dimensions of Teaching

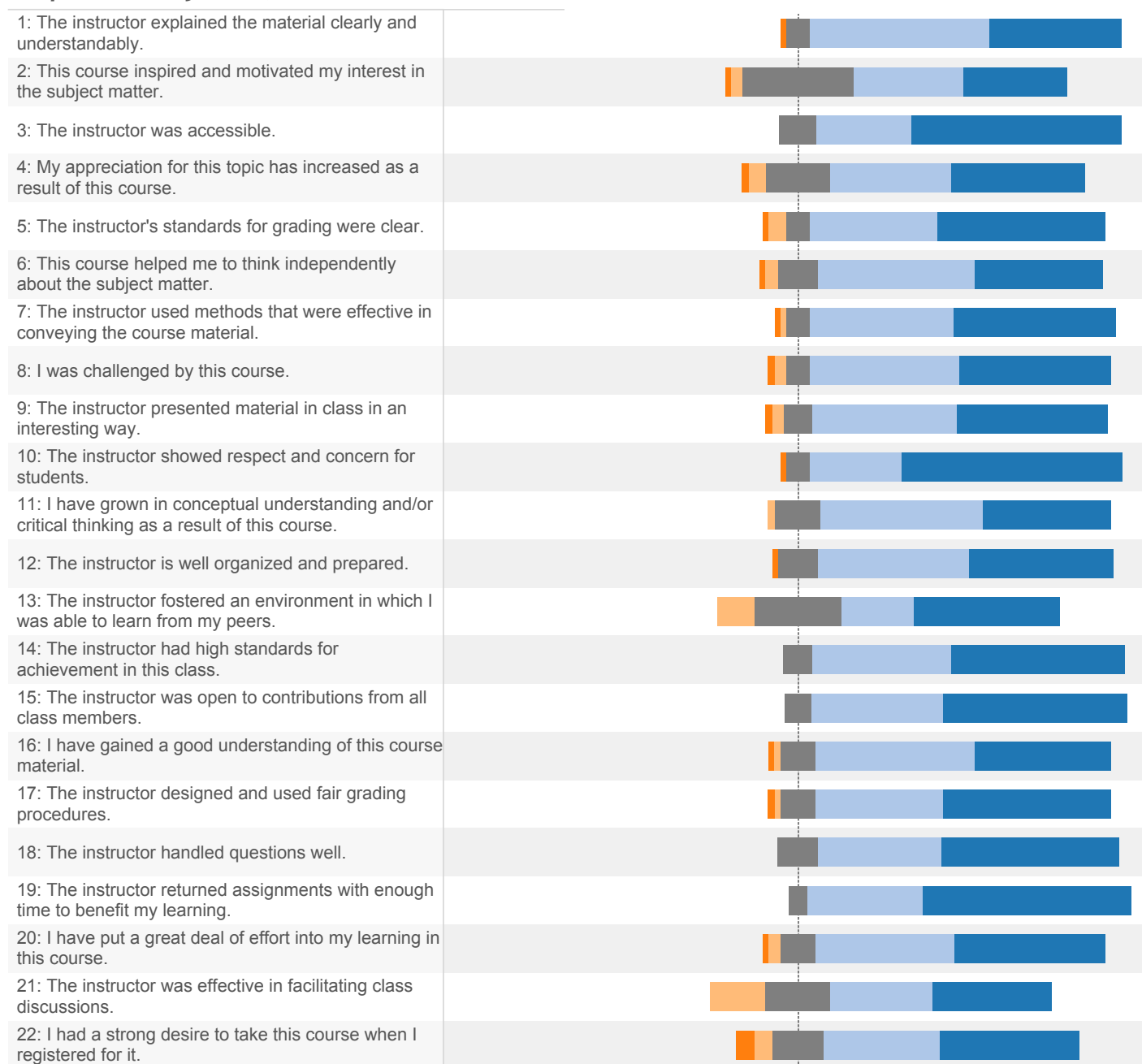


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| Term Fall 2018 | Instructor CAMPANY Courtney .. | Course Title Evolution, Ecology, Di.. | Course/Section BIOL 181 A | Enrollment 75 | Surveys 61 |
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Response Analysis: Questions 1 - 22

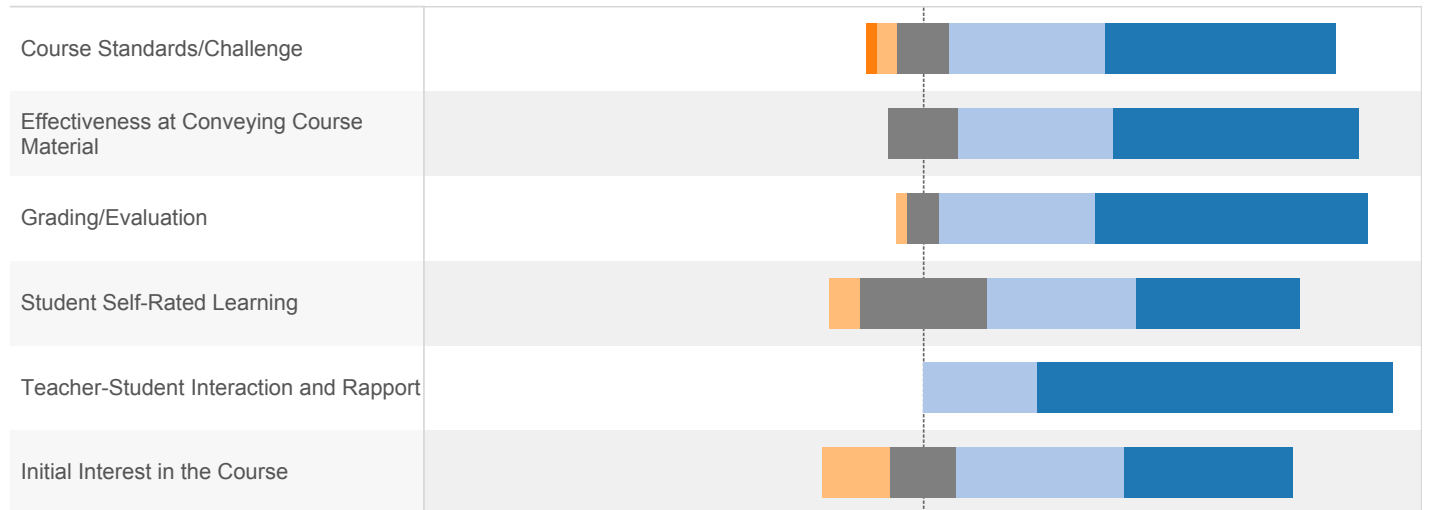


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| Term Fall 2018 | Instructor CAMPANY Courtney .. | Course Title Evoln, Ecol, Diversity .. | Course/Section BIOL 181L E | Enrollment 15 | Surveys 15 |
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Dimensions of Teaching

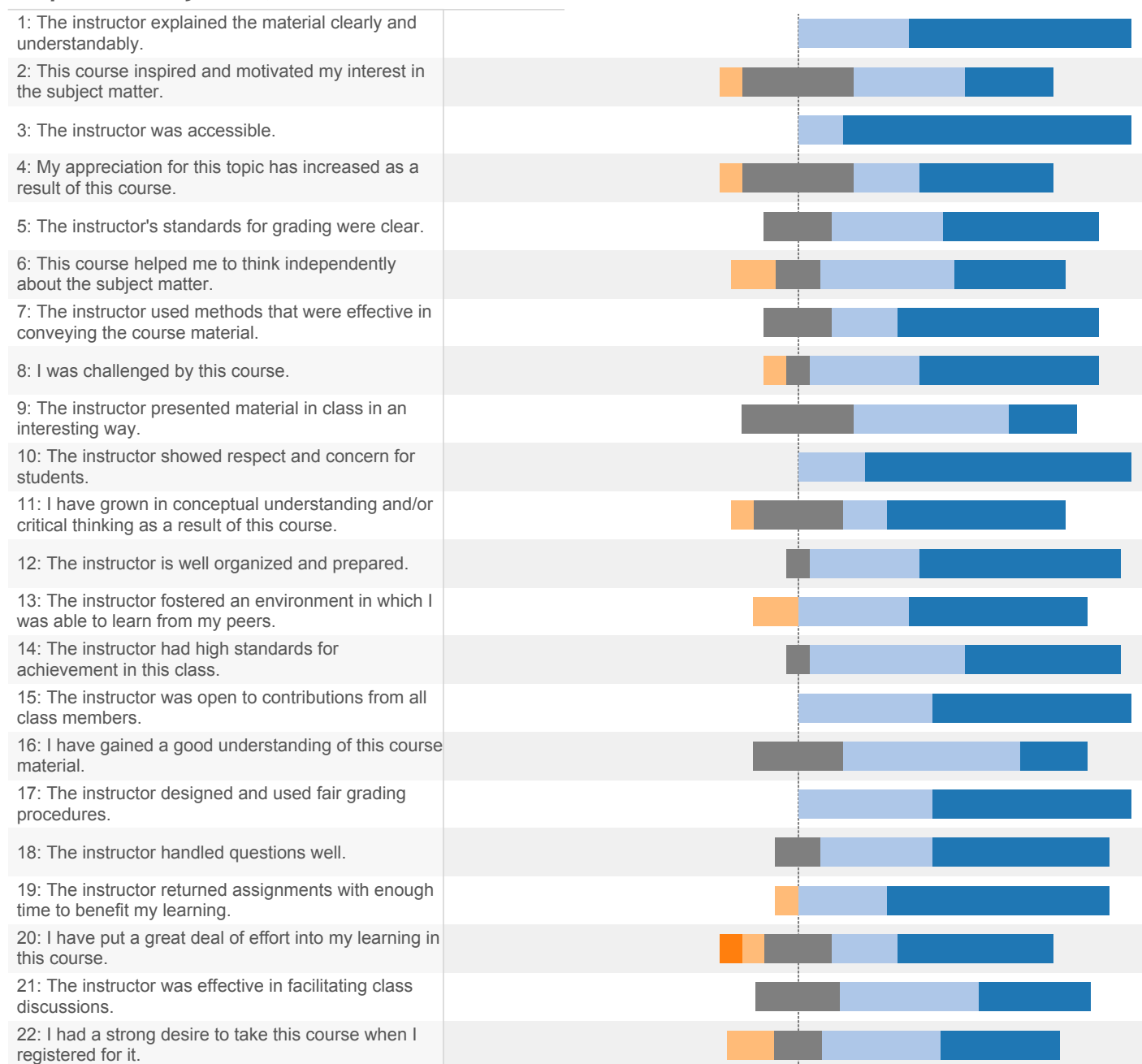


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Response Analysis: Questions 1 - 22



Legend

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 ■ Agree
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Bio 359: Ecosystem Ecology
Spring 2018
Syllabus

Location and Course Meeting Times:

Lectures: T, TH 9:55-11:10 - 119 Ho

Labs: T 1:20-4:10 - 236 HO

Professors:

Court Campany

Research Area: All aspects of plant biology and ecosystem ecology

Contact: 206 Olin

email: ccampany@colgate.edu

Office Hours: Monday 3:00-4:30pm, Friday 8:30-10:00am or by appointment

Course Goals:

- 1) To help you understanding the basic principles and concepts of ecosystem ecology, the impacts of human-induced global changes and how these changes are affecting ecosystem processes.
- 2) To provide you with modern data science skills that are increasingly required in post-collegiate careers
- 3) To critically evaluate and understand the primary scientific literature.
- 4) To engage environmental activism through grand challenge initiative projects

Course website: <http://moodle.colgate.edu/> I encourage you to visit the website frequently. Any changes, last minute notes, etc. will be posted. **I also reserve the right to make changes to this syllabus as the semester progresses**, which will be posted on the moodle site.

Required Text:

Principles of Terrestrial Ecology / F. Stuart Chapin III, Pamela A. Matson, Peter M. Vitousek (this will be available in the bookstore but the first edition is available for free as a pdf!)

A Learning Guide to R /Remko Duursma, Jeff Powell & Glenn Stone (provided bookstore)

Jigsaw Readings are posted on Moodle

Grading:

| Lecture | Percentage of Final Grade |
|-----------------------------|---------------------------|
| Exam 1 | 30% |
| Exam 2 | 30% |
| Grand Challenge Initiative | 30% |
| Group Jigsaw | 5% |
| Class Participation | 5% |
| Laboratory | Percentage of Final Grade |
| Learn R assignments (x2) | 10% |
| GCI Background Presentation | 25% |
| Data Science Exercises (x5) | 60% |
| Class Participation | 5% |

*Rubrics for grading breakdown of GCI and Data Science exercises are posted on Moodle

Exams:

Two exams will be given during the semester. Exams will be short essay format with synthetic discussion questions that will require you to incorporate knowledge from lecture, text, and scientific readings. Make-up exams will be given for **extreme** cases only; with written documentation of the reason the exam was missed. In the event that an exam must be postponed due to cancellation of a class meeting, it is to be assumed that the exam will be re-scheduled for the next lecture period (unless announced otherwise).

Grand Challenge Initiative:

This semester we will be running modified versions of Global Grand Challenges, focused on major current ecological issues. Information on Grand Challenges can be found at <https://grandchallenges.org> and <https://www.chapman.edu/scst/undergraduate/grand-challenges-initiative.aspx>. You will work as small interdisciplinary teams to tackle an assigned ecological problem. You must work efficiently and collaboratively as a complete unit to develop background and knowledge gap materials, design a written ecological action plan and present your forward-thinking solutions during the final exam time slot. Approximately, half of our laboratory time will be devoted to this effort **so full attendance in all labs is required**. There is one grade (+ self-assessment) per team, so it is necessary to treat this project as if it were a real-world job assignment.

Data Science Exercises:

The quality and quantity of data available in ecological and environmental research has exploded over the past decades. As such, data science is now an emerging and necessary trend in biology field. Leveraging available data allows scientists to address both new and old scientific questions with new insights and improved rigor. In this class I will introduce you to data science coding via the R programming language. Once comfortable with the basics, you will be tasked with exploring mystery datasets that are relevant to ecosystem ecology. The goal will be for you to learn and become comfortable with manipulating and visualizing data. The focus will not be on statistics, but instead the aforementioned steps where you will be tasked with identifying patterns and interpreting what you believe the data show. As most graduate

students will immediately learn to code in some capacity, this concept also aims to give you a 'leg up' in post-undergraduate endeavors.

Lecture Schedule

| Date | Topic | Readings |
|----------|--------------------------------|--|
| M 1/22 | Syllabus, short meeting | |
| T, 1/23 | The Ecosystem Concept | Chapter 1, Pickett 2002 |
| TH, 1/25 | Grand Challenge Initiative | |
| T, 1/30 | Earth's Climate System | Chapter 2 |
| TH, 2/1 | Jigsaw – Climate | Brook 2005, Lenten 2008 & Buntgen 2011 |
| T, 2/6 | Geology & Soils | Chapter 3 |
| TH, 2/8 | Jigsaw – Soils | Post 1982, Lai 2004 & Crowther 2016 |
| T, 2/13 | C cycling and Productivity | Chapter 5 |
| TH, 2/15 | Jigsaw – NPP | Schuur 2001, Krausmann 2013 & Michaletz 2016 |
| T, 2/20 | Plant C budgets | Chapter 6 |
| TH, 2/22 | Jigsaw – Biomass distributions | Enquist 2003, Reich 2014 & Poorter 2015 |
| T, 2/27 | Nutrient Cycling | Chapter 7/8/9 |
| TH, 3/1 | Jigsaw – Nutrients | Wardle 2004, Averil 2014 & Terrer 2016 |
| T, 3/6 | Energy & Water balance | Chapter 4 |
| TH, 3/8 | Exam 1 | **submit group jigsaw papers (3) |
| | SPRING BREAK | |
| T, 3/20 | Disturbance and Succession | Chapter 12 |
| TH, 3/22 | Jigsaw - Disturbance | Hobbs 1992, Running 2008 & Thom 2016 |
| T, 3/27 | Anthropogenic Changes | Chapter 14 |
| TH, 3/29 | Jigsaw – Ecosystem Models | Xu 2016, Brown 2017 & Park 2018 |
| T, 4/3 | FACE experiments | |
| TH, 4/5 | Jigsaw – FACE | Iversen 2008, Phillips 2011 & Duursma 2016 |
| T, 4/10 | Species Effects | Chapter 11 |
| TH, 4/12 | Jigsaw - Diversity | Grimm 1998, Macdougall 2013 & Lange 2014 |
| T, 4/17 | Landscape Heterogeneity | Chapter 13 |
| TH, 4/19 | Exam 2 | |
| T, 4/24 | JIGSAW – Fire | Keeley 1999, Syphard 2007 & Calkin 2013 |
| TH, 4/26 | JIGSAW – Invasive | Wittmann 2014, Pyke 2008 & Blossey 1994 |
| T, 5/1 | JIGSAW – Coral | Roberts 1991, D'Angelo 2014 & Mumby 2014 |
| TH, 5/3 | SETs, GCI group work | |
| T, 5/8 | Final Exam (12:00 – 2:00) | |

*** Journal articles may be changed at short notice (i.e. recently published relevant paper), so monitor announcements on the moodle site**

Lab Schedule (Tuesday afternoons)

| Date | Topic | Assignment |
|------|--------------------------------------|--------------------------------------|
| 1/23 | No lab | |
| 1/30 | Learn R in a day | 2 pdf figures |
| 2/6 | Learn R markdown | html report |
| 2/13 | Mystery data #1 | html report |
| 2/20 | GCI background | 20m presentation |
| 2/27 | Mystery data #2 | html report |
| 3/6 | GCI group work | |
| 3/20 | Mystery data #3 | html report |
| 3/27 | GCI group work | |
| 4/3 | Mystery data #4 | html report |
| 4/10 | GCI group work | |
| 4/17 | Self-driven field data (groups of 2) | html report |
| 4/24 | Self-driven field data | |
| 5/1 | Sets, JIGSAW – Mountain, GCI | Hart 2014, Anderegg 2015 & USDA 2018 |

Sufficient time is scheduled into lab timeslots for mentoring, group discussions and research into individual Grand Challenge projects. An html report will be assigned following each data science exercise and will be due before to the following Tuesday lecture. Assignments turned in late will receive a 15% per day penalty.

Collaboration: I strongly encourage you to work with your peers on the laboratory assignments—NOT write/code for each other, but discuss findings. We will be using the “Slack” team messaging app to help each other with coding and interpretation during and outside of labs. Remember—SCIENCE IS COLLABORATIVE!

ADA Statement: If you feel you may need an accommodation based on the impact of a disability, you should contact me privately to discuss your specific needs. If you have not already done so, please contact Lynn Waldman at the Office of Academic Support and Disability Services in the Center for Learning, Teaching, and Research. Ms. Waldman is responsible for determining reasonable and appropriate accommodations for students with disabilities on a case-by-case basis, and more generally, for ensuring that members of the community with disabilities have access to Colgate’s programs and services. She also assists students in identifying and managing the factors that may interfere with learning and in developing strategies to enhance learning. Her services are available free of charge to all students.

Academic Dishonesty: Colgate University defines academic dishonesty as any attempt to misrepresent one's performance on any academic exercise submitted for evaluation. In any situation where a student questions the appropriateness of representing a work as his or her own, it will be the student's responsibility to raise the question with the instructor. Ignorance of University policy concerning academic dishonesty shall not be a defense in any University

Student Conduct Board proceeding. Any form of academic dishonesty will be dealt with according to the standards established by Colgate University.

BIOL 181 – Evolution, Ecology, and Diversity

Fall 2018

Lectures: MWF 9:20 – 10:10 in Olin 300 – Love Auditorium; Labs: Olin 222

Lecture and Lab Instructors

Dr. Courtney (Court) Campany
ccampany@colgate.edu
Olin 206, 228-6176
Office Hours: M 3-4:40, F 1-2:30¹

Dr. Frank Frey
ffrey@colgate.edu
Ho 224, 228-7339
Office Hours: M 10:30-12, W 1-2:30¹

Christine Visscher LaFave
clafave@colgate.edu
Olin 310, 228-7882
Office Hours: T 1-2:30, W 10:30-12¹

Dr. Timothy (Tim) McCay
tmccay@colgate.edu
Olin 215, 228-7705
Office Hours: M 1:10-3, R 1-2:30¹

Texts-Available at the Bookstore

² Freeman, S. et al. 2017. Biological Science, 6th Ed., Pearson Education Inc., San Francisco

² Pechenik, J.A. 2015. A Short Guide to Writing about Biology, 9th Ed., Pearson,

Course website: <http://moodle.colgate.edu>

Course description

This course concentrates on the evolutionary biology of organisms and the ecological processes that influence the distribution and abundance of plants and animals, as well as their interactions. The history of biological diversification (including the evolution of prokaryotes and eukaryotes, the radiation of animal groups, and the invasion of land by plants) is discussed. In addition, the mechanisms of evolution, including natural selection, adaptation and extinction are studied. Topics in population ecology as they relate to evolutionary processes, including physiological and behavioral ecology, population growth and species interactions (e.g., competition, predation, mutualism) are also covered, and there is a strong focus on the physical, chemical and biological factors that affect communities and ecosystems. The credit-bearing laboratory **BIOL 181L** must be taken concurrently with **BIOL 181**. Projects in the laboratory and field include experiments designed to understand evolutionary principles and to test ecological hypotheses.

¹ Other office hours are available by appointment.

² A copy of these texts is on reserve in the science library.

Course policies

General

You are responsible for all material covered in lectures, portions of the text assigned during lectures, readings listed on the syllabus, and all materials presented to you for study in the laboratory. In lecture periods, you will be given information that is not in the textbook. Therefore you must attend lectures regularly and take detailed notes if you want to do well in the course.

Laboratory exercises are an essential part of *Evolution, Ecology, and Diversity*. They will serve to reinforce concepts covered in lecture, and expand your knowledge about organismal diversity, experimental science, field and lab work, and communicating your work—the process of science. Missing lab will result in the loss of 2.5% of your total course score and the inability to make up assignments completed in lab that day. In lab, you will be expected to hand in written answers to questions or fill in worksheets as part of in-lab assignments; these may require additional work outside of the lab. There are also several written research assignments in the lab course.

Disability Services

If you feel you may need an accommodation based on the impact of a disability, you should contact Professor Campany, Frey, LaFave or McCay privately to discuss your specific needs. If you have not already done so, please contact Lynn Waldman at the Office of Academic Support and Disability Services in the Center for Learning, Teaching, and Research. Ms. Waldman is responsible for determining reasonable and appropriate accommodations for students with disabilities on a case-by-case basis, and more generally, for ensuring that members of the community with disabilities have access to Colgate's programs and services. She also assists students in identifying and managing the factors that may interfere with learning and in developing strategies to enhance learning. Her services are available free of charge to all students.

Makeup Exams and Late Work

We will give a make-up exam or accept a late assignment without penalty ONLY on receipt of information from a Dean, physician, or varsity coach that satisfactorily explains your inability to take the exam or hand in the assignment at the scheduled time. Missed labs CANNOT be made up. They might be dropped from consideration and the points redistributed equally over the other lab assignments if we receive the same kind of information as would qualify for a make-up exam. All late assignments will incur penalty at a rate of 3% per 24-hour period, including weekends and holidays.

Academic Integrity

The work that you submit as your own must be your own. Written work may not be taken from current or past members of the class, online or other sources, or any place other than the inside of your skull. If you have uncertainty about how to properly paraphrase, cite, or refer to the ideas of others, please ask your lab or lecture instructor. Also see relevant material in Pechenik (2015).

THE COLGATE ACADEMIC HONOR CODE

“At Colgate University, we believe honesty and integrity are fundamental in a community dedicated to learning, personal development, and a search for understanding. We revere these values and hold them essential in promoting personal responsibility, moral and intellectual leadership, and pride in ourselves and our University. As Colgate students, we will represent ourselves truthfully, claim only work that is our own, and engage honestly in all academic assignments. Since articulated standards and expectations can influence attitudes, and because each of us shares the responsibility for maintaining academic integrity, we are committed to upholding the Academic Honor Code.”

Collaboration

We encourage appropriate types of collaboration in this class. You can and should discuss papers that you read, interesting ideas, and interpretations about material in the class and your research findings in lab. You also can review each other's writing. In all cases, you should acknowledge input appropriately. Remember—science is collaborative! If you have a question about what sorts of collaboration are permitted in this course, just ask.

Participation

We expect each of you to come to class and lab well prepared, i.e., all readings done ahead of time. We also expect you to be engaged during class and lab, by asking and answering questions, working with classmates in the lab and in the field—and generally showing a level of involvement that will enhance your learning. This is especially important in lab, and participation in class makes up a portion of your lab grade.

Peer-led Team Learning (PLTL)

Throughout the semester you will have the opportunity to work in groups outside of class, guided by peer leaders, to solve integrative problems relevant to the material we are covering in lecture. These problems will allow you to apply your knowledge and extend it to novel situations. They will also prepare you for the types of questions we ask on exams! The organization and format of the PLTL sessions will be described in lecture early in the semester. You are required to sign-up for a day each

week to attend PLTL session, and you must attend on those days. If a situation arises where you must attend a different session for a week, please contact Christine LaFave (clafave@colgate.edu) to make the necessary arrangements.

Students can earn up to 2 pts of extra credit for attending PLTL sessions. For PLTLs, you will receive 1 pt of extra credit if you attend $\frac{1}{2}$ of the PLTL sessions, 1.5 pts if you attend $\frac{3}{4}$ of the sessions, and 2 points if you miss 1 or fewer sessions. To ensure credit, please be certain to sign-in to each PLTL session you attend.

NASC Liaison Group

NASC liaisons are a group of natural science and mathematics faculty members dedicated to providing science-interested students from underrepresented groups with mentorship, motivation, and individualized support as they navigate their paths in the sciences at Colgate. NASC liaisons do not replace the role of an academic advisor or offer formal academic advising. Rather a NASC liaison may meet one-on-one with a student to give another perspective on their academic plan; give tips on effective studying; or introduce a student to upper-class peers, alumni, or other faculty members that might be able to help them. The roles of NASC liaisons will depend on students' needs, and we encourage students to reach out for mentorship and moral support.

The NASC Liaison Group includes professors Gerry Gogel (Chemistry), Engda Hagos (Biology), Silvia Jiménez Bolaños (Mathematics), Patricia Jue (Chemistry), Spencer Kelly (Psychology & Neuroscience), Amy Leventer (Geology), Rebecca Metzler (Physics & Astronomy), Jason Meyers (Biology), and Elodie Fourquet (Computer Science).

Email

Announcements and reminders will be sent by email, so students should check their Colgate email frequently. Students in this class should not expect immediate responses to email, although we will try to reply to all class-related email within 24 hours. In order that we can recognize your message as important, please place the following in the subject line: "BIOL 181."

Assignments and Grading

Quizzes

On the dates marked on the class schedule, we will begin class with a graded quiz. Quizzes may cover recent material or readings for the topic to be covered that day. The purpose of these quizzes is to help you keep up with review of lectures and readings and to help you to prepare for exams.

Seminar Attendance and Written Responses

All students are encouraged to attend all seminars in the Biology Department Seminar Series and the NASC Science Colloquium series. You must attend at least two seminars in the Biology Department Seminar Series, the NASC Science Colloquium series or the ENST Brown Bag series (<https://sites.google.com/a/colgate.edu/science-colloquium-schedule/>) and submit a short response essay (one to two paragraphs) within a week of the seminar. The response essay should give the title and presenter of the seminar, and describe what you learned from the material presented and whether and how the talk caused you to think about the material in this course differently. **Your responses must be submitted via Moodle under Seminar Responses within 48 hours of seeing the seminar. We will not accept these responses in any other format (e.g., email, hard copy).**

Selected Talks Related to the Subject Matter

September 28, 12:15. Occurrence and mass flows of organic micropollutants in a wastewater-impacted lake-river system in central New York. Teng Zeng, Syracuse University. ALANA.

October 2, 11:30. Capturing the moment bubbles kill plants. Scott McAdam, Purdue University. 101 Ho ISB.

October 12, 3:30. History of the scientific discovery of glaciers in the American west. Andrew Fountain, Portland State University. 101 Ho ISB.

October 26 3:30. Transparent vertebrates offer a direct view of the brain and spinal cord in action. Joseph Fetcho, Cornell University. 101 Ho ISB.

October 30, 11:30. Sirtuins and acid pH regulate metabolism in cardiac ischemia. Paul Brookes, University of Rochester. 207 Lathrop.

November 6, 11:30. Function and regulation of microRNAs in the *C. elegans* embryo. Katherine McJunkin, National Institutes of Health. 101 Ho ISB.

November 13, 11:30. Conservation is hard, restoration is harder. Lessons from Albany's Pine Bush. Jeff Corbin, Union College. 101 Ho ISB.

December 7, 3:30. Never home alone: The stories of the biodiversity in our bedrooms, bathrooms, and kitchens. How it is changing and why those changes matter. Rob Dunn, North Carolina State University. 101 Ho ISB.

Grade Breakdown

| Lecture | Percent |
|-------------------|------------|
| Quizzes (6) | 12 |
| Seminar responses | 2 |
| Exam I | 15 |
| Exam II | 18 |
| Exam III | 23 |
| Final Exam | 30 |
| Total | 100 |

[The first part of the final exam is a standard lecture exam on material covered during the last portion of the semester (~20.0%), the second part of the final exam is cumulative over all course material (~10.0%).]

| Laboratory | Percent |
|----------------------------|------------|
| Participation | 10 |
| Research Paper | |
| Methods & Results draft | 10 |
| Results | 10 |
| Introduction draft | 10 |
| Discussion draft | 10 |
| Peer Review | 5 |
| Final Revised Paper | 25 |
| Lab Practical Exams | |
| Plant Diversity Quiz | 10 |
| Animal Diversity Quiz | 10 |
| Total | 100 |

Reading List

In addition to the textbook readings noted on the course schedule, lectures will frequently be augmented by readings that are attached to web links on Moodle. *You are responsible for reading them before coming to lecture, and will need to read them again following lecture to fully understand and integrate the concepts discussed.*

****The syllabus, daily lecture schedule, and course policies are not intended to be a legally binding contract between students and instructor or students and the university. They are for guidance only; instructors reserve the right to make changes at their discretion.****

**** SPECIAL REQUIREMENTS DURING FIRST WEEK OF CLASSES ****

1. **Assessment Test.** *All students in BIOL 181 must take the Biology Department Assessment Test at the beginning and end of the semester. Failure to do so will result in a grade of Incomplete for the course. The Assessment Test is anonymous and (possibly) fun! The Assessment Test will be offered in Olin 202 Thursday and Friday between 9 am and 4 pm during the first week of the term and Monday through Friday during the last week of the term.*
2. **PLTL Sign-Up on Moodle.**
3. **Safety Training.** EHS will be conducting Laboratory Safety / Hazardous Waste Management Training (approximately 45 minutes in length) for all students prior to their first class working with chemicals in the laboratory. All BIOL 181 students are required to attend training before attending their first lab activity (beyond the assessment test).

The schedule is as follows in Love Auditorium - Olin 300:

| | |
|----------------------|---------------------------|
| Thursday, August 30 | 3:15 pm, 4:30 pm |
| Friday, August 31 | 8:30 am, 1:30 pm, 4:00 pm |
| Sunday, September 2 | 5:00 pm |
| Tuesday, September 4 | 8:30 am, 11:30 am |

| Week | Mo | Date | Day | Topic | Readings | PLTL Topic | Lab Investigation | Lab Assignment Due |
|------|-----|------|-----|---|-------------|---------------------------------|---|---|
| | Aug | 30 | R | Introductions | | | Assessment Test | |
| 1 | Sep | 3 | M | Evolution happens | Ch. 22 | | Pollination Lab (Field) | |
| | | 5 | W | Evolution by natural selection | Ch. 22 | | | |
| | | 7 | F | Population genetics | Ch. 22 | | | |
| 2 | | 10 | M | Quantitative genetics | Ch. 23 | Pop Gen | Pollination Analysis & Writing Methods Sections | |
| | | 12 | W | Kin selection | Ch. 50 | | | |
| | | 14 | F | Sexual selection Quiz #1 | Ch. 24 | | | |
| 3 | | 17 | M | Speciation | Ch. 24 | Tree Thinking Exam Review | Animal Diversity I & Writing Results Sections | |
| | | 19 | W | Reconstructing evolutionary relationships | Ch. 25 | | | |
| | | 21 | F | Exam I | | | | |
| 4 | | 24 | M | Animal Diversification | Ch. 30 – 32 | Animal Diversity | Animal Diversity II | Methods and Results Sections Due |
| | | 26 | W | Major Trends in Animal Evolution | | | | |
| | | 28 | F | Major Trends in Animal Evolution | | | | |
| 5 | Oct | 1 | M | Prokaryotes and earliest life on Earth | Ch. 26 | Hominid Evolution | Animal Diversity Quiz & Literature Research | |
| | | 3 | W | Endosymbiosis and protists | Ch. 27 | | | |
| | | 5 | F | Introduction to Fungi Quiz #2 | Ch. 29 | | | |
| 6 | | 8 | M | Fall Break (Oct. 6-9) | | Break | Circadian Rhythms & You | |
| | | 10 | W | Evolution of algae and land plants | Ch. 28 | | | |
| | | 12 | F | Exam II | | | | |
| 7 | | 15 | M | Major trends in plant evolution | Ch. 28 | Life Cycles and Plant Diversity | Plant Diversity I & Writing Introductions and Discussion Sections | |
| | | 17 | W | Major trends in plant evolution | Ch. 28 | | | |
| | | 19 | F | Plant form and function | Ch. 34 | | | |
| 8 | | 22 | M | Plant nutrition | Ch. 36 | Life Cycles and Plant Diversity | Plant Diversity II & Final Notes on Science Writing | |
| | | 24 | W | Plant physiology Quiz #3 | Ch. 35 | | | |
| | | 26 | F | Plant environmental physiology | | | | |

| Week | Mo | Date | Day | Topic | Readings | PLTL | Lab Investigation | Lab Assignment Due |
|------------------------------------|-----|------|-----|---|-------------|--------------------|--------------------------------------|--|
| 9 | | 29 | M | Animal form and function | Ch. 39 | Extreme Physiology | Plant Diversity Quiz | Introduction and Discussion Sections Due |
| | | 31 | W | Animal physiology case: sharks | | | | |
| | Nov | 2 | F | Animal physiology case: seals Quiz #4 | | | | |
| 10 | | 5 | M | Species Interactions: Competition | | Exam Review | Ecological Succession I (Field) | |
| | | 7 | W | Species Interactions: Predation | | | | |
| | | 9 | F | Exam III | | | | |
| 11 | | 12 | M | Species Interactions: Mutualisms etc. | | Population Ecology | Ecological Succession II (Lab) | |
| | | 14 | W | Population modelling | Ch. 51 | | | |
| | | 16 | F | Population structure and regulation | Ch. 51 | | | |
| Thanksgiving Recess November 19-26 | | | | | | | | |
| 12 | | 26 | M | Earth's energy and water budgets | Ch. 49 | Population Ecology | Peer Review of Papers | Bring two copies of completed lab report with abstract to class with no name on report |
| | | 28 | W | Climate and weather Quiz #5 | Ch. 49 | | | |
| | | 30 | F | Species distributions | Ch. 52 | | | |
| 13 | Dec | 3 | M | Biodiversity | Ch. 52 | Trophic Cascades | Ecological Succession III (Analysis) | Completed lab report due on day of lab |
| | | 5 | W | Community Dynamics | Ch. 52 | | | |
| | | 7 | F | Trophic Levels | Ch. 53 | | | |
| 14 | | 10 | M | Biogeochemical Cycling Quiz #6 | Ch. 53 | Exam Review | Assessment Test | |
| | | 12 | W | Global Change | Ch. 53 – 54 | | | |
| | | 14 | F | Conservation and ecosystem services | Ch. 54 | | | |
| 15 | | 20 | R | Final Exam (third midterm coverage [65%] and cumulative [35%]) | 9-11am | | | |