Course Syllabus

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BIOLOGY 1B COURSE SYLLABUS

Spring 2019

Course Description: This course is a general introduction to organismal diversity, ecology, and evolutionary biology. It is intended for students majoring in the biological sciences, but it is open to all qualified students. Students must take both Biology 1B and 1A/1AL to complete the General Biology sequence. Either course can be taken first or second.

Course Website: http://ib.berkeley.edu/courses/bio1b/) This website contains lecture and lab schedules and contact information.

bCourses: Lecture schedules and readings, and pre-lab readings and assignments, are posted to the Files section of the course bCourses site. Grades and important announcements will also be posted to bCourses. Please make sure your personal bCourses settings are configured to receive announcements by email. Check the bCourses homepage for important links and information.

Lectures: Monday, Wednesday, Friday 8-9 AM in 2050 VLSB. Lecture is simulcast in the adjacent rooms 2040 and 2060 VLSB, and to 101 LSA. Please use side rooms if you arrive late or if there are no more seats available in 2050. All students enrolled in Biology 1B, regardless of lecture section, are encouraged to find a seat in 2050 VLSB.

Do not enroll in other courses scheduled for the same time as Biology 1B lecture, labs, or exams. Lab attendance is mandatory. Exams will not be offered at any time other than the published exam times. See the list of exam dates in the Exams section below.

Professors:

- Ellen Simms (Evolution), email: ESimms@berkeley.edu
- Lew Feldman (Organismal Biology), email: LJFeldman@berkeley.edu
- George Roderick (Ecology), email: Roderick.Bio1@berkeley.edu

All office hours are on the course calendar and are held in 3019 VLSB. Check the <a href="Check the check the check

Who to Contact: For course-related questions after the start of labs please first contact your lab instructor. Then see the course coordinators below for academic, enrollment, attendance, DSP, or other needs as indicated. You are always welcome to talk to faculty, lab instructors, and course admin. however following this sequence will be most efficient for everyone.

Academic Coordinator (academic issues, lab concerns):

• Joshua Povich, email: povich@berkeley.edu

• Office: 2002 VLSB, Phone: 510-643-0448

Administrative Coordinator (enrollment, lab attendance, student athletes, DSP):

• Brett Boltz, email: bboltz@berkeley.edu

• Office: 3057 VLSB / Phone: (510) 664-9865

Textbook: Campbell *Biology* 11th edition is required for Biology 1B. The Campbell Biology text is the primary resource for further reading on topics presented in lecture and lab. The 10th edition of this text is nearly identical for Biology 1B content and may be more economical for students who *do not* plan to take Biology 1A (see details below).

Campbell Biology 11th edition is available from the Cal Student Store packaged with a code for 2 years of access to the Mastering Biology online resources and an electronic version of the text (eText). Texts with 2yr access codes may also be available for rent from the Cal Student Store at a reduced price.

Biology 1B does not require the online resources (Mastering Biology), however the online resources can be a good supplemental resource for studying.

For those planning to take Biology 1A:

- Biology 1A does require access to the online resources.
- If you plan on taking Biology 1A in a future semester, then purchasing the package with the access code from the Cal Student Store is likely the least expensive option for the two classes.

For those NOT planning to take Biology 1A:

- The Cal Student Store offers text rentals that include 2yr access to online materials.
- The 10th edition is equivalent to the 11th edition for Biology 1B topics.
- A small number of 10th edition texts are available at the Biosciences Library Course Reserves in VLSB.

Classroom feedback technology: An application will be used in lecture to facilitate student participation. Attendance and active participation in lecture will give you the best possible experience, will benefit others, and will set you up for success in the course. Prepare for lecture by ensuring that you can access the application. Details are linked from the bCourses home page under the "Lecture" heading. Any Wi-Fi-enabled device can be used to participate. Please let us know if you do not have a device or if we can assist with access in any way.

Piazza, a discussion forum for lecture: Students are encouraged to attend lecture, ask questions, and to participate in faculty and lab instructor office hours. Outside of lecture and office hours please use *Piazza* linked in the bCourses tools to submit and/or respond to questions/follow-up about lecture content. Students and instructors can respond and everyone can benefit by checking in and joining the conversation.

Students can choose the option of posting questions anonymously or with the option to display their name. Anonymous posts are only anonymous to other students. Piazza is intended for content-related questions, discussion about lecture concepts. Questions about scheduling or course logistics can be asked in the Logistics folder, *however*, please first check bCourses or ask lab instructors.

Piazza is at best a conversation where everyone contributes. When you explain your own understanding first then those who respond can better identify where the misunderstanding may be. Note that the volume of questions may increase just before exams. Questions posted in close proximity to exams may not receive answers due to

time constraints. Ask questions as they come up in lecture. Keep up with the course, attend office hours, and visit Piazza for group discussions.

Piazza guidelines and best practices:

- First use the search tool. A discussion thread for your question may already exist!
- Please ask and respond to questions respectfully. The same respect is expected online as in person. Please contact course coordinators with any concerns about online conduct.
- If asking about a specific question or image, please include an image for reference.
- Every posting to Piazza should first *include your understanding* and can then be followed with a question or explanation about what is not clear. It is important that everyone contributes by first making a best effort to explain their own understanding. Faculty and lab instructors will not respond to questions that ask for definitions or explanations that can readily be found by looking up the information in the text or other course materials.

Laboratory Materials:

<u>Enrolled students are charged a Course Materials Fee (CMF)</u> to cover costs associated with the lab portion of the course including materials. See the course description in the online Schedule of Classes for details.

<u>Pre-lab readings (lab introductions)</u> are posted to the Files area of bCourses. Students must read the posted material for all the exercises **before** coming to lab. There is not enough time for a first-time reading during class. The reading will help prepare you for lab and weekly pre-lab quizzes. Students must bring posted lab materials to lab for reference.

Lab Attendance: You are required to attend all of your scheduled lab sections. If you miss a lab without an excused absence (see below), you will receive no credit for that lab and the associated quiz and assignments. If you must miss all or part of a lab session due to a medical or other emergency/conflict that is beyond your control, you must contact your lab instructor AND the Administrative Coordinator, Brett Boltz (bboltz@berkeley.edu) before the end of the lab session you are missing. Failure to contact the Administrative Coordinator before the end of your missed lab will disqualify you for a make-up lab and will result in an unexcused absence. If too ill to contact Brett Boltz prior to the end of your lab session, medical documentation will be required. See the following details.

<u>Lab Make-Ups</u>: In the event that you must miss a lab with a qualifying reason (circumstance beyond your control) and if space allows, Brett Boltz will authorize a lab make-up within the same week (Mon. - Thurs.). Make-up labs are only offered during the same week that a given lab is held. **Documentation of the circumstance is generally required** to receive approval to attend a make-up lab, including illness. Brett will inform you as to what documentation is needed depending on individual circumstances. You must have a lab make-up form from Brett Boltz to attend a make up lab.

Excused Absences: In the event that you miss a lab and cannot attend a make-up lab within the same week, students can submit a request for an excused absence. Excused absences are given at the discretion of the Administrative Coordinator, Brett Boltz. Excused absences are granted only when qualifying documentation is provided. All documentation to support an excused absence must be received within two weeks of the missed lab. Failure to provide documentation within two weeks may result in an unexcused absence.

More than two absences from lab (regardless of whether they are excused or unexcused) may result in a failing grade for the course.

Quizzes: Quizzes are given at the beginning of each lab period, except for the first lab period, and except before the field trip to the botanical garden. If you are late to class, you will not be given additional time. Make-up quizzes will not be given. Please arrive to lab on time.

Office Hours: You are encouraged to attend office hours to discuss/ask questions about the lecture material. Lab instructors will hold an office hour at least once per week in 3019 VLSB. You may attend any of the lab instructor office hours, even if they are not your section instructor. Times will be posted on the office door and on the online bCal calendar titled Bio1B Office Hours (http://www.google.com/calendar
/embed?src=berkeley.edu_b8oj5pm46t71bejvvbhl95l934%40group.calendar.google.com&ctz=America/Los_Angeles).

Exams: Lecture exam content may be drawn from topics presented in lecture, lab, assigned reading, and supplemental materials. Each professor will determine for their portion of the course what will be included on lecture exams. All three midterms follow the same format with approximately 90% of points from multiple choice and approximately 10% of points from short answer/free response-type questions. The final exam is entirely multiple choice and includes an approximately equal number of points from each of the three lecture professors.

Three midterms and one cumulative final will be given at the following dates and times:

MIDTERM 1: Wednesday, February 27th, 7-8:15 PM
 MIDTERM 2: Monday, April 8th, 7-8:15 PM
 MIDTERM 3: Wednesday, May 1st, 7-8:15 PM
 FINAL EXAM: Monday May 13th, 8-10 AM

THERE ARE NO MAKE-UP EXAMS either before or after the scheduled exam time. If you miss one midterm due to illness, family emergency, etc., you must present written, verifiable documentation to the Administrative Coordinator, Brett Boltz. If an exam absence is approved the missing midterm grade will be pro-rated at the end of the semester. Any issues that interfere with taking or completing an exam must be brought to the attention of the course before you submit your exam. Only one exam in a semester can be pro-rated. The Final Exam cannot be pro-rated. Absence from more than one midterm and/or the final exam will result in zeros for those exams or qualifying students may petition the course for an incomplete in the course (see below).

If you have religious obligations that conflict with exam time please see Brett Boltz within the first two full weeks of the course to make arrangements. Do not schedule travel that conflicts with exams. There will be no accommodation for travel conflicts.

Exams will be held by section in many different rooms across campus. Your lab instructor will let you know your section's exam location. Exam locations are also posted to bCourses approximately 1 week before the exam. If your lab instructor is not at the test location to administer the exam: call Coordinator Joshua Povich at 510-643-0448.

After exam scores are posted to bCourses, exam questions are available for review for one week after the date of the exam during lab instructor office hours. Notes about the exam (physical or digital including photos) are not allowed. You may not keep your exam. If you leave the exam room, lab room, or office hours with an exam (digital or physical versions, notes or photos), this will be considered cheating and you will receive a 0 for that exam and may be prosecuted for academic misconduct.

Electronics, paper, pens, pencils and any other note-taking devices are not allowed during exam review. All such items must be stowed during exam review.

Grading: Overall course letter grades are determined by the total number of points received during the semester. Below is a breakdown of the total possible points in the course:

3 Midterms (99, 96, 99 pts) = 294 pts (updated for MT2)
 Final Exam (156 pts) = 156 pts (updated for MT2)

Lab = 300 pts
 Total = 750 pts

Letter grades will be determined at the end of the semester. Course letter grades are based on total course points out of 750 possible course points. The cutoffs for letter grades will not be higher than **A**-≥90% (≥675pts), **B**-≥80% (≥600pts), **C**-≥70% (≥525pts), **D**-≥60% (≥450pts), and **F**<60% (<450pts). Each grade interval is divided into equal thirds so that the maximum cutoff within each letter range (eg. B and B+) is 3.33% points (25 course pts.) and 6.66% points (50 course pts.) above the "-" grade level. The A+ level is an exception and is assigned by the professor(s). Cutoffs may be lowered for the entire course at the professor(s) discretion.

Points are earned by participating throughout the semester. In some semesters there may be 1pt of extra credit available for participation in a voluntary end-of-semester survey (in this case students will be notified by email after the last lecture). **There is no other opportunity for extra credit.**

For students on the border of cutoffs, faculty will review lab participation and exam grades, as defined below, to determine the course letter grade. Please note that students on cutoff borders are identified based on total course points out of 750 (or less for excused assignments) and *not* on percentage points. Each percentage point in the course represents 7.5 course points. Faculty set the number of points from a cutoff that defines borderline.

Criteria for receiving the next higher letter grade for students within the defined borderline range of cutoffs:

- Total course points must be within the defined border of a letter grade cutoff.
- The average of lecture exams (Midterms 1, 2, 3 and the Final Exam) must be at the next higher grade cutoff.
 This metric is used because lecture exams are standardized across the course and represent individual understanding.
- Satisfactory lab attendance and participation; satisfactory lab attendance includes no unexcused lab absences, no more than two absences (excused and/or unexcused), on-time arrival for lab and presence through the end of lab activities. Satisfactory participation requires engagement and equal contribution to group work throughout the semester and no missing individual lab assignments (except in the case of an officially excused lab absence). This is the minimum expectation of all Biology 1B students.
- For consideration at the B grade or higher, students must have scored 60% or higher on all exams.

Incomplete "I" Grades: To be eligible for an Incomplete, a student must complete at least half the course material with a passing grade of "C" or higher and provide documentation of their inability to complete the course due to circumstances beyond their control. Students have one semester to complete the course or the "I" becomes an "F". Students **currently** making up an "I" should e-mail Brett Boltz (bboltz@berkeley.edu) at the start of the semester.

Repeating the Class: If you are repeating the class or wish to in a future semester you must repeat the entire course by enrolling in both the lecture and lab sections. Work from prior semesters, *regardless of whether it is someone else's work or your own*, must not be used as a resource or submitted in a subsequent semester. This is considered academic misconduct. All work must be original to the current semester. If you have questions about this policy please ask.

DSP Students: Students who have been issued a letter of accommodation from the Disabled Students Program (DSP) must bring this to the attention of the course so that we can arrange accommodations as necessary. Please speak to your lab instructor, faculty, or course administration as soon as possible. It is the student's responsibility to meet with a course instructor or admin. at the beginning of the semester or when a new accommodation is approved to discuss class attendance and participation expectations. If you need an accommodation and have not yet seen a Disability Specialist, please do so as soon as possible. It is not advisable to schedule classes so that you have back-to-back tests with extended time. Any questions should be directed to Brett Boltz. bboltz@berkeley.edu

Working in groups: This approach has been very successful in Biology 1B. In lab, you will be divided into groups of two to four students. In general, all the students in a group receive the same grade on a lab exercise. Students are expected to contribute equal shares of work on group assignments. Students are expected to communicate with group members (either in person or via email or bCourses) and to work outside of class as necessary to complete assignments. If you have trouble working with a group member or with your group as a whole, please talk to your lab instructor or the Course Coordinator <u>as soon as possible</u>. All comments and discussions will be confidential.

Early Drop Deadline: The early drop deadline applies for Biology 1B. The early drop deadline is the end of second week of classes. If you do not drop the course and if you do not attend lab you will receive an F. Do not take this class Pass/Not Pass if you might need a letter grade in the future unless you plan to repeat the course and are eligible to repeat the course. All students are encouraged to talk to an academic advisor in their intended major, Integrative Biology, or L&S when considering changes to their academic plan.

Wait list students: All wait list enrollment is done on CalCentral.

Switching sections and adding the class: Switching sections can occur on a very limited basis. You can switch into an open (space available) section on CalCentral. This should be done by Friday **before** the first week of lab (you will not be able to switch on CalCentral after this date). See bCourses for more details. If you have a question about your schedule or enrollment contact the Biology 1B Administrative Coordinator (bboltz@berkeley.edu).

Study Groups and Tutoring: The Student Learning Center at the César E. Chávez Student Center offers study groups and drop-in tutoring. Services for specific courses may vary by semester. Please see details at http://slc.berkeley.edu/biology-1b (http://slc.berkeley.edu/biology-1b)

Recommendations: If you expect to ask for a letter of recommendation, even a year or two from now, talk to your lab instructor at the beginning of the semester. Your lab instructor is your primary contact in this course and will get to know you better than anyone else. At your request, professors may co-sign a letter of recommendation that is written by a lab instructor.

Undergraduate Student Instructors (UGSI): Students who have done well in the course, enjoy Biology, think they might enjoy teaching, and who have been recommended by their lab instructor are encouraged to apply for UGSI positions. If you are interested in participating in Biology 1B as a UGSI in the future, contact your lab instructor. UGSI responsibilities include a weekly lab prep. meeting, a four hour lab once per week, and two projects including design and presentation of a lab introduction. Successful UGSI's receive two units of credit.

Lawrence Hall of Science (LHS): UC Berkeley students can apply to work with children at the LHS and receive one unit of credit. See Research and Teaching Opportunities on the Biology 1B web site. Note, this opportunity is separate from Biology 1B, participation is not counted toward credit in Biology 1B.

Safe, Supportive, and Inclusive Environment: Biology 1B welcomes all students and values everyone's participation. The classroom, lab, and work place should be safe and inclusive environments for everyone. The Office for the Prevention of Harassment and Discrimination (OPHD) is responsible for ensuring the University provides an environment for faculty, staff and students that is free from discrimination and harassment on the basis of categories including race, color, national origin, age, sex, gender, gender identity, and sexual orientation. Questions or concerns? Call (510) 643-7985, email ask_ophd@berkeley.edu/ (mailto:ask_ophd@berkeley.edu/)

Limits to Confidentiality: As UC employees, all course instructors and staff, including faculty, lecturers, GSI's, tutors, and course coordinators, are designated as Responsible Employees. As Responsible Employees all instructors are required to report incidents of sexual violence, sexual harassment or other conduct prohibited by university policy to the Title IX officer. In this sense reports of sexual harassment or sexual violence can not be kept confidential, however, the Title IX officer will consider requests for confidentiality once an incident has been reported. There are confidential resources available to students, including the CARE Advocate Office (http://sa.berkeley.edu/dean/confidential-care-advocate), which serve survivors of sexual violence and sexual harassment. While these limits to confidentiality can help in deciding what to share please do not hesitate to contact the course if we can assist in finding resources or other support.

Student Support Services: The University offers support in a variety of areas. Biology 1B faculty, lab instructors, and staff are happy to assist you in finding support services. Below are just some of the available resources, additional resources are linked from the bottom of the Biology 1B bCourses home page:

Sexual Violence & Sexual Harassment Support & Prevention: http://survivorsupport.berkeley.edu/)

(http://survivorsupport.berkeley.edu/)

Mental Heath Concerns: https://uhs.berkeley.edu/counseling/urgent (https://uhs.berkeley.edu/counseling/urgent)

UHS Emergencies & Crises: https://uhs.berkeley.edu/emergency (https://uhs.berkeley.edu/emergency)

Undocumented Student Support: https://undocu.berkeley.edu/ (https://undocu.berkeley.edu/)

Cheating, Plagiarism, Academic Misconduct, Keeping a Copy of a Midterm: Students are not allowed to keep exam copies. Leaving the exam room with your exam, or any form of copies of exam questions is considered cheating. Students who leave the exam room before the end of the exam period are required to turn in their exam materials and will not be permitted to return. If you have a medical issue that may require you to take a break during the test, please contact the Administrative Coordinator well in advance of the test, medical documentation of your condition may be required. No calculators, phones, smart watches, or other electronic devices are allowed during exams. All electronic devices must be off and stored out of site.

Use of graded work from prior semesters or courses, including your own work, is considered academic misconduct. Use of another student's work (or your own work from a prior semester) to complete an individual assignment is also academic misconduct. Names of all group members and a contribution form specifying individual contributions are required with every assignment. Omission of a contributor's name from an assignment means that someone is representing as their own, work that is not their own, this is plagiarism. Software will be used to identify unoriginal content in assignments submitted to the course.

UC Berkeley's honor code states, "As a member of the UC Berkeley community, I act with honesty, integrity, and respect for others." As a tool to promote academic integrity in this course, written work submitted via bCourses

may be checked for originality using a computer application. If you have questions or concerns about the use of this software please contact the Course Coordinator.

It is every student's responsibility to understand what constitutes academic misconduct, to understand what plagiarism is, and to understand how to avoid misconduct.

<u>The UCB Division of Student Affairs</u> provides definitions for what constitutes cheating and plagiarism here: http://sa.berkeley.edu/conduct/integrity/definition)

<u>The UC Berkeley library website</u> is also a resource for what constitutes plagiarism along with some links to information about how to avoid plagiarizing: http://www.lib.berkeley.edu/instruct/guides/citations.html (http://www.lib.berkeley.edu/instruct/guides/citations.html)

Additional resources and information are linked from the bottom of the Biology 1B bCourses home page.

If you have questions about what constitutes plagiarism please read the information linked here and from bCourses and then follow-up with your lab instructor or course coordinators if necessary.

Reproducing, sharing, or distributing course notes and materials for commercial purposes or compensation is a violation of the Berkeley Campus Code of Student Conduct (University Policy 102.23). This policy includes graded work and recordings of lecture and lab. More detail is available here: http://sa.berkeley.edu/conduct/code-of-conduct/policies) the conduct/policies (http://sa.berkeley.edu/conduct/code-of-conduct/policies)

Cases of cheating (including attempted cheating) will be reported to the Office of Student Conduct. The standard procedure for dealing with cheating is: (1) An "F" in the class; (2) A letter in your file that identifies you as a cheater (this letter, upon request, will be sent to medical and graduate schools, employers, etc.); (3) Hours of campus service; and (4) Risk of suspension or dismissal. It just is not worth it. If you are having trouble completing an assignment by a deadline talk to or email your lab instructor or the Course Coordinator *before* the due date. Take steps to avoid making the choice to cheat. Receiving a zero is better than receiving an academic misconduct report. Please read Warning to Cheaters in the Announcements on the Biology 1B web page.

Keeping up with lecture, using course resources including office hours, and working throughout the semester, will help you to master the material.

We hope that you enjoy your semester of Biology 1B!

Course Summary:

Date	Details
	Final Exam (https://bcourses.berkeley.edu/courses/1478804/assignments/7954783)
	L01 Natural Selection (https://bcourses.berkeley.edu/courses/1478804/assignments/7954760)
	L02 Microevolution (https://bcourses.berkeley.edu/courses/1478804/assignments/7954761)

Date	Details

L03 Phylogenetics (https://bcourses.berkeley.edu/courses/1478804/assignments L03 Pre-lab Evolutionary Evidence (https://bcourses.berkeley.edu/courses/1478804 /assignments/7954762) L04 Macroevolution (https://bcourses.berkeley.edu/courses/1478804/assignments /7954766) L05 Collection & Journal (https://bcourses.berkeley.edu/courses/1478804/assignments L05 Introduction to Green Plants (https://bcourses.berkeley.edu/courses/1478804 /assignments/7954765) L06 Collection & Journal (https://bcourses.berkeley.edu/courses/1478804/assignments /7954768) L06 Introduction to Vascular Plants (https://bcourses.berkeley.edu/courses/1478804 /assignments/7954767) L07 Collection & Journal (https://bcourses.berkeley.edu/courses/1478804/assignments /7954771) L07 Reproduction & Anatomy of Flowering Plants (https://bcourses.berkeley.edu /courses/1478804/assignments/7954772) L08 Plant Bio. Lab Practical (https://bcourses.berkeley.edu/courses/1478804 /assignments/7954773) L08 Water Relations (https://bcourses.berkeley.edu/courses/1478804/assignments /7954770) L09 Bioindicators Report (1 upload per group) (https://bcourses.berkeley.edu /courses/1478804/assignments/7954774) L09 Bioindicators Revision (only 1 submission per group) (https://bcourses.berkeley.edu/courses/1478804/assignments/7954769) L10 Population Biology and Interspecific Competition (https://bcourses.berkeley.edu/courses/1478804/assignments/7954777) L11 Annotated Bibliography (https://bcourses.berkeley.edu/courses/1478804 /assignments/7954779) L11 Ecosystems Presentation (https://bcourses.berkeley.edu/courses/1478804 /assignments/7954778) L11 Research Skills (https://bcourses.berkeley.edu/courses/1478804/assignments /7954775) L12 Predator-Prey Interactions (https://bcourses.berkeley.edu/courses/1478804 /assignments/7954780) Midterm 1 (https://bcourses.berkeley.edu/courses/1478804/assignments/7954776) Midterm 2 (https://bcourses.berkeley.edu/courses/1478804/assignments/7954781) Midterm 3 (https://bcourses.berkeley.edu/courses/1478804/assignments/7954784)

Date	Details
	Quiz 1 (https://bcourses.berkeley.edu/courses/1478804/assignments/7954751)
	Quiz 2 (https://bcourses.berkeley.edu/courses/1478804/assignments/7954752)
	Quiz 3 (https://bcourses.berkeley.edu/courses/1478804/assignments/7954753)
	Quiz 4 (https://bcourses.berkeley.edu/courses/1478804/assignments/7954755)
	Quiz 5 (https://bcourses.berkeley.edu/courses/1478804/assignments/7954754)
	Quiz 6 (https://bcourses.berkeley.edu/courses/1478804/assignments/7954756)
	Quiz 7 (https://bcourses.berkeley.edu/courses/1478804/assignments/7954757)
	Quiz 8 (https://bcourses.berkeley.edu/courses/1478804/assignments/7954758)
	Quiz 9 (https://bcourses.berkeley.edu/courses/1478804/assignments/7954759)
	Survey (https://bcourses.berkeley.edu/courses/1478804/assignments/7986770)

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