
SDSU-UCSD Joint Doctoral Program in Geophysics Student Handbook 2022-23



UC San Diego



OVERVIEW

The purpose of this handbook is to provide clarity on policies and procedures in areas most critical to students in the Joint Doctoral Program (hereafter JDP) in Earthquake Science and Applied Geophysics between San Diego State University and the Scripps Institution of Oceanography. Students are also encouraged to contact the program's graduate advisors for additional information or address any concerns.

San Diego State University and the Scripps Institution of Oceanography, UC San Diego, offer a strongly research-oriented joint doctoral program in Earthquake Science and Applied Geophysics. All graduate educational activities in the program, including teaching, advising, and examining, are controlled by an executive committee consisting of 3 members from each university. A JDP co-advisor is elected from each institution. Students must finalize their research advisor by the end of spring quarter, of their first year. Students are expected to advance to candidacy by the end of their third year. Students are expected to defend their dissertation and complete the program by the end of their fifth year. Should JDP students have any questions or concerns about this timeline or any other program requirements, they should contact the SIO's graduate coordinator, Gilbert Bretado, Irene Occhiello at SDSU, or the program's co-advisors, Yuri Fialko (SIO) and Kim Olsen (SDSU).

FINANCIAL SUPPORT

Students admitted into the Ph.D. program are typically guaranteed five (5) years of support, provisional on remaining in good academic standing (please see section on Good Academic Standing). Financial support comes in the form of employment (as a Graduate Student Researcher), fellowships, teaching assistantships, and other funding sources. Financial support includes tuition & fees and a yearly stipend of about \$32,000 (with a small increase a year upon advancement to candidacy).

Students should be aware of their source of funding. A student's source of funding may change, often several times, during their tenure. Students are funded by a combination of SDSU funds requiring teaching assistant duties, and their advisor's research. Students should refer to their offer letter or contact the SDSU Department of Geology's JDP administrator, should they have any questions about the breakdown of their funding.

While students should be aware of their source of funding and may be asked to participate in the proposal-writing process, it is ultimately their advisor's responsibility to secure funding. Students should not be made to feel that it is their responsibility to secure funding or facilitate the information-sharing process between their advisor, grant office, and the SDSU Department of Geology.

Students are eligible for funding for 5 years, provided that the student is in good academic standing. Self-generated fellowships, such as the NSF GRFP, are considered support, and count towards the five-year funding guarantee, as full or supplemental support throughout the duration of these awards.

The JDP agreement at SDSU includes funding from SDSU to cover tuition at SDSU (up to 6 units per semester), cost of required course load during Year 1 at SIO, possibility of taking additional courses at UCSD after Year 1, as well as funds toward the JDP students' stipend and fringe benefits. This funding from SDSU is granted for up to 3 new JDP students per year with a steady-state of 15 JDP students in the program. The funding model requires that the students TA in the Department of Geology at SDSU whenever required. If feasible, first-year and 5th-year students are exempt from the TA duties. The JDP student's advisor(s) may provide additional funding for the stipend amount. Typically, the advisor provides additional funds so that the stipend amount matches that provided by the UCSD PhD program. Finally, a campus fee is covered by the JDP student's advisors.

Fellowships and grants can provide additional funding for tuition/fees and stipend, and in the case of more than 3 admitted students per year, replacement of the SDSU support. Students are encouraged to obtain extramural support by applying directly to fellowship granting agencies.

An opportunity from SDSU directed toward JDP students is the University Graduate Fellowship. Nominations typically remain open until April 1. The program supports up to 30 Fellows with a stipend of \$25,000 plus benefits for one academic year, with an additional year of required matching support from an external funding source.

ADVISOR

All JDP students are required to finalize their advisor by the end of spring semester in the first year. This requires both an advisor that is willing to intellectually advise and financially support the student. For many students, they are financially supported by their advisor, at the onset of the program, and there is no change, as they will continue to work and receive financial support from that same advisor. Ultimately, it is the responsibility of the student to find an advisor, who is willing to intellectually advise and financially support the student.

Once a student is beyond their first year, it becomes increasingly difficult to change advisors and adhere to the Ph.D. timeline. Students are encouraged to meet with the JDP programs co-advisors to discuss their concerns, as early as possible. Whether a student ultimately changes advisors or not, early discussion is essential in order to identify possible solutions for the student.

Ph.D. TIMELINE

The following is a rough estimate of a graduate student's progress towards a Ph.D. in the JDP in Geophysics between SDSU and UCSD. The exact schedule of exams and the balance between classes and research is based on decisions made by you and your advisor as well as the department's requirements:

Year 1: Core Classes/Departmental Exam

Year 2: Classes/Research

Year 3: Research/Qualifying Examination; Advancement to Candidacy

Year 4: Research

Year 5: Research and/or Final Examination/Dissertation Defense

REGISTRATION AND SATISFACTORY PROGRESS REQUIREMENTS

Students will be registered at SDSU and UCSD throughout the program. Students shall be enrolled in UCSD courses for the first year of their degree program. After their first year, students may enroll in courses at both universities without additional fees. Students should enroll in 6 units (exactly 6 units, accompanied with the requirement to sign a Reduced Course Load Form) at SDSU per semester, including the first year at UCSD, where these 6 units may be used as a combination of course and research units (e.g., Geol 897, Doctoral Research). At UCSD, the students are required to enroll in at least 1 unit per quarter in order to use the Gym and transportation facilities. However, note that enrollment in any course at UCSD may have attendance rules, which can be difficult for JDP students to meet after the first year. This issue is currently unresolved.

SIO

First-year students are expected to enroll in a set of core courses at SIO (see Appendix). The schedule of the classes and other pertinent information for a given quarter can be viewed online via [TritonLink](#). For the first two weeks of the quarter, changes to your course schedule can be

made via [TritonLink](#). After the second week of the quarter, students must submit an online request through UC San Diego's enrollment system. Instructor, departmental and Graduate Division signature approval is required for changes submitted through the online enrollment system.

Deadlines are as follows:

- Dropping a course, without receiving a W on transcript, Friday of 4th week
- Dropping a course and receiving a W on transcript, Friday of 9th week (failure to drop course by 9th week deadline will result in F on transcript)
- Adding a course = Friday of 10th week

SDSU

After the first year of core classes, the students usually work with their advisor at SDSU. Additional classes are available for the JDP students after the first year, see Appendix. Students should visit SDSU [WebPortal](#) for course addition, wait lists, and drop deadlines.

ACADEMIC STANDING

Students must remain in good academic standing by meeting departmental and university standards. This include:

- 1) Maintaining a minimum cumulative GPA of 3.0 or above and enrolling in at least 6 units of graduate level (600 series) and/or upper division (500 series) courses each semester. Students who do not maintain a cumulative GPA of 3.0 or above are placed on academic probation by the UCSD Graduate Division and are subject to academic disqualification and removal from the program.
- 2) JDP students must earn a B or better in any required core course. Students must enroll for the letter grade option in all required courses, unless the course is only offered for satisfactory/unsatisfactory S/U. If a student does not earn a grade of B or better in any required core course, it is at the discretion of the instructor, in consultation with the curricular group advisor, the student's advisor, and the department, to determine any further action. This includes: retaking the course, auditing portions of the course, taking a substitute course, or completing an independent study section (298) to focus on deficiencies.
- 3) Having no more than a total of eight units of "F" and/or "U" grades.
- 4) Obtain satisfactory annual Spring Evaluation.
- 5) Advance to Ph.D. candidacy through successful completion of the Qualifying Exam by the end of the student's third year. Good academic standing is required to be eligible for funding, to advance to candidacy, to continue registering for courses, and obtain a graduate degree from the JDP.

Ph.D. ANNUAL EVALUATIONS

The UCSD Graduate Council policy requires that doctoral students be evaluated every spring quarter. This annual evaluation is also known as the “Spring Evaluation.” A satisfactory evaluation is necessary for continued financial support in the following academic year. For those who have not constituted their doctoral committee, this review requires the advisor’s and student’s input and signature. Once the student constitutes their doctoral committee, this evaluation will require the advisor’s, (at least) two members’ of the student’s doctoral committee, and the student’s input and signature.

Spring Evaluations are a substantive progress review. Students are required to convene a yearly committee meeting. Students are required to meet with their Doctoral Committee (if constituted). A Committee meeting should be held prior to the submission of the Spring Evaluation. Students are encouraged to meet with their committee on a quarterly basis.

Students are first required to submit a self-evaluation. The self-evaluation questions are completed prior to the evaluation being routed to the student’s advisor and (if applicable) their doctoral committee members, for their feedback. Once the student’s advisor and (if necessary) doctoral committee members have completed the evaluation, students must sign the evaluation, indicating that they have read it. The student’s signature does not indicate agreement. The student will also be given space to comment on the evaluation. Finally, the JDP co-advisors review and sign all annual evaluations prior to their routing to the Graduate Division.

DEPARTMENTAL EXAM

At the end of the first year, JDP students are required to take the Departmental Exam, administered by the SIO Geophysics curricular group. The Departmental Exam is intended to test the general scientific background of the student, the ability to integrate material from specific courses in analyzing new problems, demonstrate a reasonable degree of originality and insight, and to have the ability to present clear verbal and/or written arguments. Failure to pass the examination may have these results, decided by the examination committee:

- An opportunity to retake the examination at a later date.
- An opportunity to take a focused examination on the areas in which the student did poorly.
- Recommendation that the student leave the program.
- Recommendation to take additional coursework.

Individual exam details will be provided to the first-year Ph.D. students at the beginning of Fall quarter.

MASTER’S DEGREE POLICY

Students in the Joint Doctoral Geophysics programs are currently not eligible to earn a Master’s

degree, regardless of previous graduate academic history. A petition has been sent to UCSD graduate affairs to explore the possibility to instate a MS degree for JDP students, if desired.

TIME LIMITS

All JDP students are subject to UC San Diego policy on time limits to the Ph.D. The Graduate Division has three time limits pertaining to students' academic progress toward the Ph.D. degree:

- Pre-Candidacy Time Limit (PCTL): Maximum registered time in which a student must advance to doctoral candidacy may not exceed four years.
- Total Support Time Limit (SUTL): Maximum time during which a doctoral student is eligible for support may not exceed seven years (refer to Student Support).
- Total registered Time Limit (TRTL): Maximum registered time in which a student must complete all doctoral requirements may not exceed eight years.

POLICY ON DOCTORAL TIME TO CANDIDACY

Although UC San Diego's time limit for advancement to candidacy is the end of the fourth year, it is expected that all students must take their qualifying examination and advance to candidacy no later than the end of their third year. If a student is to receive meaningful guidance from the doctoral committee regarding their dissertation research, and if deficiencies in preparation are to be identified in time for them to be remedied, it is important that the qualifying examination be held by the end of the student's third year.

EXCEPTIONS TO POLICY ON DOCTORAL TIME LIMITS

If a JDP student fails to meet one of UC San Diego's doctoral time limits, the UCSD Graduate Division will consider exceptions to the UCSD Doctoral Time Limits policy, only if the request is supported by the student's advisor and the JDP co-advisors, and if a current annual evaluation is on file with the UCSD Graduate Division. A department analysis of the circumstances needs to be included in the request.

PRE CANDIDACY REQUIREMENTS

Pre Candidacy Grade Requirements

Prior to advancing to candidacy, each JDP student is required to successfully complete all academic requirements, as outlined below. In addition, all JDP students are required to complete one of the Responsible Conduct of Research courses. See "Ethics Requirement" below. Successful completion entails taking all required coursework for a letter grade and earning a grade of B or better. Any coursework that is only offered S/U, must be completed with a grade of S. In addition, students are required to fulfill any seminar requirements, as outlined by the Geophysics curricular group. Any exception to this policy requires the approval of the

student's Geophysics curriculum advisor, in consultation with the student's advisor and any relevant instructors. Written approval must be submitted by the curriculum advisor to the graduate coordinator, to be added to the student's file. Please note if a student is taking any required coursework, in the quarter that they hold they qualifying exam, the student's advancement to candidacy will not be processed until final grades are issued for those courses.

Pre Candidacy Geophysics Coursework Requirements

The following contains the Pre Candidacy Coursework Requirements of the JDP students during the first year. In addition to any specific required courses, please pay attention to any seminar requirements, as outlined by the Geophysics curricular group. No courses are formally required, however there are several core courses that cover topics to be tested on the written portion of the Departmental Examination:

- **SIOG 200** *A/B/C Geophysics Research Skills: Geophysics 1st year seminar (2 units/ quarter)*
- **SIOG 223A** *Geophysical Data Analysis I (4 units)*
- **SIOG 223B** *Geophysical Data Analysis II (4 units)*
- **SIOG 225** *Physics of Earth Materials (4 units)*
- **SIOG 234** *Geodynamics (4 units)*

See Appendix A for the descriptions for these courses.

Elective Coursework:

- **SIOG 221.** *Plate Tectonics in Practice (4 units)*
- **SIOG 222.** *Introduction to Industry Reflection Seismic Methods (4 units)*
- **SIOG 224.** *Internal Constitution of the Earth (4 units)*
- **SIOG 227A.** *Introduction to Seismology (4 units)*
- **SIOG 227B.** *Structural Seismology (4 units)*
- **SIOG 227C.** *Seismological Sources (4 units)*
- **SIOG 228.** *MS Research Seminar for students in contiguous BS/MS programs*
- **SIOG 229.** *Fundamentals of Gravity and Geodesy (4 units)*
- **SIOG 230.** *Introduction to Inverse Theory (4 units)*
- **SIOG 231.** *Geomagnetism and Electromagnetism (4 units)*
- **SIOG 232.** *Ethical and Professional Science (2 units)*
- **SIOG 233.** *Introduction to Computing (4 units)*
- **SIOG 236.** *Satellite Remote Sensing (4 units)*
- **SIOG 238.** *Numerical Methods for PDEs (4 units)*
- **SIOG 239.** *Special Topics in Geophysics (4 units)*
- **SIOG 240.** *Marine Geology (4 units)*
- **SIOG 247.** *Rock Magnetism and Paleomagnetism (4 units)*

At Year 2+, JDP students have the opportunity to take advanced classes in Earthquake Physics (**GEOL 690** – Earthquake Physics I, and **GEOL 691** – Earthquake Physics II, **Geol 638** – Adv. Notable Historical Earthquakes, and **GEOL 642** - Neotectonics) at SDSU. See Appendix A for descriptions for these courses.

ETHICS REQUIREMENT

Each Ph.D. student is required to complete one of the approved UC San Diego Responsible Conduct of Research courses before taking their Qualifying Exam. Scripps offers two ethics courses, SIOB 273A and SIOG 232. To see a listing of ethics courses offered through other UC San Diego departments, please go to <http://ethics.ucsd.edu/courses/index.html>. Students must register and receive credit for one of these courses, in order to fulfill the Ethics Requirement.

DOCTORAL COMMITTEES

Each JDP student is required to have a Doctoral Committee. The Doctoral Committee will determine the student's qualifications for independent research by conducting a Qualifying Examination expected by the end of the student's third year of study. The Doctoral Committee also supervises the preparation of the dissertation, and administers the Final Examination. Passing the Qualifying Examination signifies a student's Advancement to Candidacy.

Doctoral Committees in the JDP consist of a minimum of 5 members who hold instructional titles and at least 4 of the 5 members must hold professorial titles of any rank. In addition, a Researcher with Lecturer's Appointment may serve as 1 of the required 5 members. All members of the committee must be from SDSU or UCSD, with at least two from UCSD. At least one of the 2 UCSD members must hold a ladder-rank faculty position. A second UCSD member, if in the research series at UCSD, must hold a lecturer appointment at SIO. One member from each University must be a tenured (full or associate) professor or emeritus professor from outside the SIO Department at UCSD and the Department of Geological Sciences at SDSU. This member cannot have any formal affiliation or appointment with the SIO Department.

The Dissertation Committee is established after completion of the UCSD Departmental Examination. The Dissertation Committee administers a Qualifying Examination and the final Thesis Defense. The Ph.D. Dissertation Committee determines the student's qualifications for independent research by means of the Qualifying Examination, administered no later than the end of the third year. Passing the Qualifying Examination signifies a student's Advancement to Candidacy.

At least two members must represent academic specialties that differ from the student's specialty. Each committee must have a committee chair. A co-chair may be appointed but is not required. Please note that the committee chair and co-chair cannot also serve as one of the two

required members, outside of the student's academic specialty.

A "sixth" member can be appointed to a student's doctoral committee, at the discretion of the student's committee chair(s) and upon approval by the Department Chair and Dean of Graduate Division. A "sixth" member is typically a second Researcher with Lecturer's Appointment or someone who is not eligible to serve as one of the required five members (e.g. Project Scientist or someone from outside of the UC system). A copy of the "sixth" member's CV is required, along with a justification of the individual's inclusion on the committee.

Once the committee membership is decided, send the names to the SIO graduate coordinator, Gilbert Bretado (gbretado@ucsd.edu), as well as Irene Occhiello (iocchiello@sdsu.edu). This must be done at least three weeks before the scheduled qualifying exam date. The graduate coordinator will ensure that the membership meets all Department and UC San Diego requirements. The graduate coordinators will also prepare the necessary forms and route the forms to the Graduate Divisions for final approval.

It is the expectation of the Graduate Division that all members, including fifth members, will physically attend the qualifying exam and final defense. Please note, the Graduate Council extended the temporary exception to permit virtual qualifying exams and final defenses through fall quarter. Please contact the department's Graduate Coordinator for the most current COVID-19 campus policy regarding in-person events. All required paperwork is now processed and electronically signed through DocuSign. The department's Graduate Coordinator will prepare and submit the Advancement to Candidacy form and Final Defense Report form.

Electronic signatures are not permitted. You should pay special attention to this requirement when determining whether to include a "sixth" member or a member of the UC system who works remotely.

If a graduate student is employed by a company outside of UC San Diego or SDSU in which a faculty member has a fiduciary interest (e.g. owns, consults for), then that faculty member may not be the thesis/dissertation advisor of the graduate student. The faculty member may be on the Doctoral Committee. If the faculty member is on the Doctoral Committee then they must inform the Universities, through the appropriate offices, of the situation and any possible conflict of interest. Upon review, the Deans of Graduate Divisions may grant exceptions.

COMMITTEE RECONSTITUTION

For a variety of reasons, a doctoral committee may need to be reconstituted. Should this be the case, email the SIO graduate coordinator, Gilbert Bretado (gbretado@ucsd.edu) and copy Irene Occhiello (iocchiello@sdsu.edu) with the proposed changes and the reason(s) for requesting the change. The change must be submitted at least three weeks before a scheduled qualifying examination or final defense to allow sufficient time to prepare the necessary forms, obtain signatures, and route the form to the Graduate Divisions for final approval. Please remember,

any changes to committee membership must continue to adhere to all UC San Diego and SDSU committee policies, as outlined above.

QUALIFYING EXAM AND ADVANCEMENT TO CANDIDACY

The purposes of the Qualifying Exam in the JDP are: to lay out a research plan that the student will tackle for dissertation, to convince a five-person committee that it is worthy of a Ph.D., to demonstrate that the student has the background and tools to carry out the plan, and to assess whether it can be completed within normative time.

There should be some form of written proposal. This should lay out the problem that the student wishes to address, accompanied by a thorough review of the literature to provide context. A tentative outline with a list of proposed chapter titles for the dissertation is helpful, as is a timeline describing the current status and the expected date of completion of each part. Each proposal should have publication quality illustrations with captions and a complete bibliography. It should have the look of a 'real' proposal typical in the student's field, e.g., NSF.

As a courtesy to the committee, the student should provide the proposal to the committee members at least three weeks prior to the exam. It is often helpful to discuss it with each committee member in advance.

It is JDP policy that the Qualifying Exam be completed by the end of the third year. The reasons for this are many. One purpose for the exam is to uncover weaknesses in the student's background, which when discovered early enough could be remedied. The later the exam, the less input the committee has in the dissertation research itself. After the student advances to candidacy, the cost to the department frequently goes down while the student's salary goes up. Finally, students who may have passed the Departmental Exam but do not have the capacity to complete a doctoral dissertation can be redirected sooner rather than later.

Some faculty members will have to re-examine expectations for the exam. It is not a mini defense and should not be held to the same standard. On the other hand, a formal proposal is good practice for students and does help to clarify their research strategy. It is the student's responsibility to make arrangements for the Qualifying Exam to take place. Students are encouraged to contact all members of their committee a few months ahead of time to schedule the examination.

The Doctoral Committee administers the Qualifying Exam and authorizes the issuance of the Report of the Qualifying Examination and Advancement to Candidacy for the Degree of Doctor of Philosophy.

Please note that there must be three (3) quarters of academic residency between advancement to candidacy and the final defense of the Ph.D. dissertation.

QUALIFYING EXAM PROCEDURES

When the examination date is scheduled, the student must contact the SIO graduate coordinator, Gilbert Bretado (gbretado@ucsd.edu), so that the examination is on the department calendar. Please let Irene Occhiello (iocchiello@sdsu.edu) aware of the examination date as well. The graduate coordinator can also assist with room and audiovisual reservations.

The Report of the Qualifying Examination and Advancement to Candidacy form must be signed by all committee members and returned by the committee chair to the SIO graduate coordinator as well as Irene Occhiello (iocchiello@sdsu.edu), who will obtain the departments' chairs' signatures.

When all of the signatures have been obtained, including SDSU's graduate division, the graduate coordinator will contact the student to pick up the form. The student must take the form to the cashier's office on Upper UCSD campus, pay the advancement to candidacy fee, and drop the form off at the Graduate Division. Following this, the student will receive a copy of the form and a letter from Graduate Division that confirms their advancement to candidacy.

FINAL DEFENSE PROCEDURES

Notify the SIO graduate coordinator, Gilbert Bretado, as well as Irene Occhiello at SDSU, at least three weeks prior to the defense. Send your title exactly as you would like it to appear in all notices. Also include in this e-mail the day, date, time and location of the defense.

If your defense title will be different than your dissertation title, let the SIO Graduate Coordinator know at this time. The graduate coordinator will prepare the final defense report, as well as the public announcement of your defense. The graduate coordinator will also confirm the members of your doctoral committee, your major, and official spelling of your name (for diploma purposes). If any changes are needed, the graduate coordinator will help process the request.

FINAL QUARTER REGISTRATION STATUS

To be awarded a graduate degree, all students must be in a fee relationship with UCSD the quarter they finish degree requirements. Establishing a fee relationship with the UCSD is done in one of two ways:

- Register the quarter of degree completion. Payment of registration fees and tuition allows students to file their dissertation.
- Pay the Filing Fee in lieu of registering.
- The Filing Fee is for the use of unregistered students who have completed all degree requirements.
- Students, who will pay the Filing Fee, are not eligible to serve as a TA, or for any other student employment.
- Students, who still need to the use of laboratory space or equipment, or are otherwise engaged in on-campus activities that would fall under the purview of SIO 299, are not eligible to pay the filing.

The Filing Fee is always half the amount of the registration fee:

- The Filing Fee is subject to change.
- Students should not pay the Filing Fee until they have scheduled their Final Appointment at the Graduate Division, and all other degree requirements, including the defense of the doctoral dissertation is completed.

Students should consult with the Department to determine which course of action would be most appropriate.

ORAL DEFENSE AND FINAL EXAM

A final defensible draft of the doctoral dissertation should be submitted to each member of the doctoral committee at least four weeks prior to the oral defense and final examination. The form of the final draft must conform to procedures outlined in the UCSD [Preparation and Submission Manual for Doctoral Dissertations and Master's Theses "Bluebook"](#) and the [Dissertation Theses Formatting Manual at SDSU](#). Students are encouraged to publish appropriate parts of their theses in scientific literature. In some cases, individual chapters are published as research articles prior to completion of the entire dissertation. Some committee chairs may require that the chapters be submitted for publication before a defense can take place.

The doctoral committee supervises and conducts the oral defense and final examination, which shall be publicly held and so announced. The oral defense can be held on the SDSU or UC San Diego campus. The oral defense must be scheduled during the standard work week, Monday-Friday, and must be held during normal business hours.

The Report of the Final Examination and Filing of the Dissertation for the Degree of Doctor of Philosophy form is initiated by the graduate coordinators, and signed by members of the doctoral committee and the Graduate Advisors.

Graduation/Defense Checklist:

Here are the steps to take when the time is approaching for you to defend and finish up. Note that some of these steps can or need to be done in parallel.

1. Communicate with your committee and set up a date and time for your defense. Make sure to reserve a room for this date and time.
2. Apply for graduation at SDSU; this is done on the [WebPortal](#). Make sure to be aware of the deadline to do this for the semester in which you hope to graduate. There is a fee for this.

3. At SDSU, register for at least 3 units of **GEOL 899** (Doctoral Dissertation) for that term. JDP students are not required to be enrolled in any units at UCSD during the quarter they graduate.

NOTE: Though you only need to enroll at SDSU during one of their semesters, pay attention to what UCSD quarter it is (for example the Winter and Spring quarters at UC overlap with the Spring semester at SDSU). You are awarded a doctorate degree for the quarter during which you finish your final appointment with Sara Hogue at UCSD (see step 13).

4. When writing your dissertation, follow closely the formatting guidelines required by UCSD. Reference the Dissertation Theses Formatting Manual for guidance.
5. Submit a copy of your dissertation to the members of your committee. It is considerate to give them ample time (3-4 weeks) to read through it before your defense.
6. If one of your committee members is an emeritus faculty, they need to sign an Agreement For Emeriti Faculty to Serve as Committee Member form. Get this signed and give to Pat Walls.
7. If any chapters from your dissertation have coauthors, are being submitted for publication, or have been published, you need to have a signed permission letter from your chair to the Dean of Grad Division at UCSD to use this material. If any of the coauthors are someone besides your chair, you need to have letters from each coauthor giving their permission for this material to be used.
8. Schedule a preliminary appointment with Sara Miceli from UCSD. Upload your dissertation to ProQuest (I believe when you schedule your preliminary appointment you will be given instructions on how to do ProQuest). Sara will go through your dissertation and tell you several changes to make to the formatting (assuming you don't do it perfectly the first time). She will give you a list of items to bring to the final appointment after your defense.
9. Bring the JDP-5 form and a copy of the signature page from your dissertation to the defense. These both need to be signed by all members of your committee.
10. After you successfully defend, get the signature from the SDSU Graduate Adviser (Kim Olsen) and the UCSD Graduate Adviser (Brian Palenik?) on your JDP-5 form.
11. Make any required changes to your dissertation. Schedule the final appointment with Sara Miceli. Upload the updated version of your dissertation to ProQuest.
12. Prior to attending your final appointment with Sara Hogue, contact Pat Walls (pwalls2@sdsu.edu) for him to send you a list of paperwork you will be required to bring him, and the procedures for submitting the dissertation at SDSU.

13. Bring the JDP-5 form to your final appointment for the UCSD Librarian signature. After this, bring it back to SDSU for Graduate and Research Affairs signature (Pat Walls). Also don't forget any of the other forms/items Sara tells you to bring at the preliminary appointment.
14. Bring or send a copy of your dissertation to Montezuma Publishing (Pat will instruct you on how to do this).

APPOINTMENTS WITH THE GRADUATE DIVISIONS

UCSD

Students are required to schedule two appointments with the UCSD Graduate Division: the Preliminary Appointment and the Final Appointment. Students will schedule their appointments through the Graduate Division's [Online Calendar](#). The purpose of the Preliminary Appointment is to review the formatting of the dissertation. For this reason, students should not schedule their Preliminary Appointment until they have a final draft of their dissertation to review with the Graduate Division.

Appointments may be made at least one full day in advance, but not more than 60 days in advance. Given that students are expected to submit the final draft of thesis to their committee four weeks in advance of their final defense, it is recommended that students schedule their preliminary appointment approximately two weeks before their final defense.

When scheduling the Final Appointment, students should allocate sufficient time to incorporate any feedback or revisions, provided by the student's Doctoral Committee, following the Oral Defense and Final Examination. This could take only days but could also take a substantially longer period of time. Students should consider the state of their final draft when scheduling their Final Appointment.

In addition, following the Oral Defense and Final Examination, the Report of the Final Examination and Filing of the Dissertation for the Doctoral Degree form must be returned to the Department's graduate coordinator, in order to obtain the signature of the Department Chair. For this reason, students should schedule their Final Appointment no less than one week after their defense, to allow the Department sufficient time to obtain the Department Chair's signature. If this is not possible, students should give the Department advanced notice so they can ensure the Department Chair will be available to sign the Report of the Final Examination and Filing of the Dissertation for the Degree of Master of Science form.

The student electronically submits their dissertation to the Graduate Divisions, the day before their Final Appointment, and, upon approval by the Deans of Graduate Divisions, files their dissertation with the University Archivist, who accepts it on behalf of the Graduate Councils. Dissertations are catalogued electronically and available through the UCSD Library website: <http://ucsd.libguides.com/dissertations>.

Students will submit the Report of the Final Examination and Filing of the Dissertation for the Doctoral Degree form and any other required forms at their Final Appointment. The Graduate Divisions will provide each student with a checklist at the Preliminary Appointment, which will indicate which forms the student must submit at the Final Appointment. Forms can vary based on registration status, inclusion of published material in the dissertation, and other factors.

POST GRADUATION CONSIDERATIONS

PROOF OF DEGREE COMPLETION AND DIPLOMA

SIO

The student's degree will be conferred and posted to their transcript after the conclusion of the quarter. Whether the student completes all degree requirements in Week Two or Week Ten, their degree will not be conferred until after the conclusion of that quarter. It takes the Graduate Division, in conjunction with the Registrar's Office, several weeks to process degree paperwork, following the conclusion of the quarter. Each quarter hundreds of graduate degrees are conferred. For this reason, it may take up to two months after the conclusion of the quarter, for the student's degree to be conferred.

Each student will receive a Letter of Completion following successful completion of their Final Appointment. This letter affirms that all degree requirements were satisfied. Students, who need to provide proof of degree to a prospective employer, agency, academic institution, etc., should use the Letter of Completion until their degree appears on their transcript.

The student's diploma will be mailed to the permanent address, as listed in the student's record. Students can review their permanent address and make any changes through [MyTritonLink](#) at UCSD. More information on diplomas can be found on the UCSD's [Registrar's Website](#).

SDSU

This is handled through Graduate Division for SDSU.

DEFENSE CELEBRATION

Students wishing to reserve SIO's Surfside for a post-defense celebration, must be aware of the following:

- To reserve, the primary contact must be a current Scripps graduate student.
- To reserve Surfside, please fill out this [online form](#). You can check the space's availability on this [calendar](#).

- If the space is available, current SIO graduate students can gain key card access to the southern door using their ID.
- If planning on serving alcohol, an alcohol permit request form must be filled out three weeks in advance per UCSD Police Department. The alcohol permit request form must be submitted to surfsidereservations@sio.ucsd.edu, please allow a few days to review in addition to the three weeks advance submission.
- The alcohol permit needs to be reviewed by the SIO Department and then signed by the UC San Diego Police Department before the request is approved. Events with more than 25 guests may be required to use a licensed bartender to serve alcohol.

NON-ACADEMIC IMPORTANT TOPICS

ELECTRONIC MAIL LISTS AT SCRIPPS

SIO

The following public email distribution lists have been created for your use. It is mandatory that you be subscribed to the Ph.D.-students@sio or ms-students@sio.ucsd.edu mailing lists, and the student mailing list for your program and Geophysics group at all times. You are added automatically upon acceptance to Scripps. Should you have any questions regarding public email distribution lists, please contact the Student Affairs Coordinator at 858.534.3206.

phd-students@sio.ucsd.edu - All Ph.D. Students

geo-students@sio.ucsd.edu - All GEO students (GP, GS, and MCG)

gp-students@sio.ucsd.edu - GP students

gp-seminar@sio.ucsd.edu - GP seminar notices

You may subscribe or unsubscribe to these (and other) public mailing lists at

<http://siomail.ucsd.edu/mailman/listinfo>

SDSU

Upon admission to SDSU, students should create an @sdsu.edu email account. They will also be added to the geograds email list, geograds@sdsu.edu and to the geostudents@sdsu.edu email list as well, geostudents@mail.sdsu.edu). Any questions can be directed to the department office (GMCS 237).

SAFETY

SIO

Scripps Institution of Oceanography operates its safety program in conjunction with UC San Diego's [Environment, Health and Safety \(EH&S\) division](#), which manages a coordinated safety

program for the entire UC San Diego campus. Safety at Scripps is a responsibility shared by everyone: students, volunteers, faculty, and staff.

A safe research environment begins with hazard awareness and risk management. Safety training is required for anyone who works in or uses a research lab, instrument development shop, test facility or other space at UC San Diego where workplace hazards exist. This includes researchers, faculty, post-docs, students (graduates and undergrads), staff research associates, visiting scientists, and volunteers. The following listing will get you started.

For more information, please look at [the UCSD safety website](#) or call the Scripps Safety Officer, [Allyson Long](#).

SDSU

Joan Kimbrough is the Safety Officer for the Department of Geological Sciences at SDSU. She conducts a safety training for new students along with Environmental Health and Safety.

TRANSPORTATION AND PARKING

SIO

JDP Graduate Student Parking Permits: JDP students are provided with a free permit that allows parking in Scripps lots from 8:00 p.m. to 7:00 a.m. on weekdays, and all day on weekends and holidays.

To obtain the Scripps Graduate Student Parking Permit please bring your photo ID to Shelley Weisel in Eckart 206. Your vehicle information is not required as you may use the permit for any vehicle you drive.

Students who wish to park on the Scripps campus during the day Monday through Friday, or on the main UCSD campus at any time, must purchase a UC San Diego parking permit from the UC San Diego Parking Office. Graduate students are entitled to a "B" (staff) permit.

The Parking Office is located on level two of the Gilman Parking Structure, and is open Monday through Friday from 7:00 a.m. to 5:30 p.m.; except on university-designated holidays. Current UC San Diego parking permit rates and further information regarding parking and transportation services (free bus passes, rideshare options, Scripps/UC San Diego Shuttle, etc.), are available at <http://parking.ucsd.edu>.

In addition, any student, with a UC San Diego B or S parking permit, must obtain the Scripps Decal on their permit. The Scripps Decal can be obtained in the Scripps Admin Building #104. Students can also contact parking@sio.ucsd.edu with any questions or to set up a time to obtain the decal. Failure to display a permit with the Scripps Decal in one the Scripps parking lots, will result in a parking citation.

Shuttle Services and Public Transit: UC San Diego Transportation offers a shuttle service between the Scripps campus and the main UC San Diego campus as well as shuttles around the La Jolla and Hillcrest area.

In addition, Triton U-Pass is a UC San Diego universal transit pass program that provides students unlimited rides on all regional MTS and NCTD mass transit bus and trolley/light rail routes during academic quarters. All current undergraduate and graduate students who have paid quarterly [registration fees](#) are eligible for a U-Pass.

SDSU

On-campus parking: permits are required at all times including evenings, weekends and holidays. There are different permits for different locations. All parking permits can be purchased online on [Parking Portal](#) with a limitation of the maximum number of allowable permits for each term. It is necessary to print a temporary permit before the hardcopy quarterly permit is shipped to your address is received. JDP students are regarded as “Faculty/Staff” and may only park in areas that have a “FS”, “S” or “N” parking sign.

SDSU and UCSD have a reciprocal parking agreement. Faculty and students who maintain a parking permit at SDSU can go to the parking office at UCSD to obtain a parking permit scratcher. Qualified individuals who wish to take advantage of this program will need to have their names submitted to Pat Walls at SDSU.

HOUSING

JDP students are offered campus housing (usually at a lower than average price) by the UCSD Associated Residential Community Housing (ARCH). With the application to the graduate housing, JDP students will be added to a waitlist and have to renew and/or update the application several times per year under the notification of the ARCH. Longer time on the waitlist results in higher priority, but not a guarantee of the housing. A special policy is implemented that graduate students have a maximum of **two years** in total (can be nonconsecutive) to live in campus housing at UCSD. There is however an exception that a student has the highest priority (and no limited term before graduation?) if he/she or his/her significant other is pregnant or raising a child/children. More detailed information can be directed to the UCSD [Housing Dining Hospitality \(HDH\)](#).

OFFICE SPACE AND KEYS

SIO

Office space is controlled by the Research Division Section Heads, with room assignments and facility maintenance being delegated to the Research Division business offices. JDP students will be assigned office space from the business office of their Research Division. Some units at Scripps may require deposits ranging from \$15 per key. Upon leaving Scripps, the key(s) must be returned to the unit from which the key(s) was checked out. Please refer to the grid below to find the appropriate facilities contact for your business office.

If you are unsure of which research division that you belong to, please contact the department office, Gilbert Bretado gbretado@ucsd.edu, or Shelley Weisel sweisel@ucsd.edu

Business Office Staff Contact Position Email Phone

IGPP Maria Rivas Facilities/Offices/Keys mrivas@ucsd.edu 4-1927

SDSU

JDP students at SDSU are assigned a cubicle with a locking door. They are also given building and computer lab access through their Red ID card. They must go to the Key Issue office located in Public Safety to obtain their keys after receiving a key issue slip from Irene Occhiello in the department office.

JDP PROGRAM CONTACTS

SIO

Yuri Fialko, UCSD JDP co-director. David Sandwell is UCSD JDP Interim co-director 2019-2020 while Prof. Fialko is on Sabbatical leave.

Josh Reeves, Student Affairs Manager 858-534-8157, jdreeves@ucsd.edu. Program administration and oversight of student services: including both undergraduate and graduate advising services, instructional services, admission and recruitment, and teaching assistantships.

Gilbert Bretado, Graduate Student Affairs Advisor 858-534-1694, gbretado@ucsd.edu Ph.D. and MS advising, doctoral committees, qualifying exam, advancement to candidacy and defenses, departmental exams, new student orientation, recruitment and outreach, diversity coordinator, leave of absence, withdrawal, and re-admissions.

Dana Jimenez, Graduate Student Affairs Advisor, dlijimenez@ucsd.edu. Admissions, course scheduling, course evaluations, course approvals, grades, verification letters, career services, alumni relations liaison, website updates, data/statistics requests, leave of absence, withdrawal, and re-admissions.

Tim DeBold, Instructional Scheduling Coordinator, tdebald@ucsd.edu. Course scheduling, course evaluations, course approvals, educational facility access and maintenance requests, course reserves, website updates, data/statistics requests

Shelley Weisel, Graduate Student Funding Coordinator 858-534-1695, sweisel@ucsd.edu. Graduate student financial support: fellowships, scholarships, traineeships, employment, bridge funding requests, grad student income verification, international student visa matters, exceptions to policy, and teaching assistantships.

Maureen McGreevy, Financial Affairs 858-534-3207, mpmcgreevy@ucsd.edu. Financial administrator: student travel and seminar reimbursement, purchase orders, faculty start-up funds.

Denise Darling, Department Manager 858-534-4794, ddarling@ucsd.edu. Department Chair and Program Directors.

Sarah Gille, Department Chair, sgille@ucsd.edu

Dr. Lihini Aluwihare, Vice Chair, laluwihare@ucsd.edu

Dr. Lisa Adams, Associate Chair, Faculty Advisor for Instructional Assistants, lgadams@ucsd.edu

Dr. Peter Franks, Program Director, Scripps Department Education, pfranks@ucsd.edu

Scripps Ombuds* Contacts

Dr. Paul Jensen, Ombudsperson, pjensen@ucsd.edu

Dr. Jennifer MacKinnon, Ombudsperson, jmackinnon@ucsd.edu

*These individuals are “mandatory reporters” and not a completely confidential resource.

SDSU

Kim Olsen, JDP co-director 619-594-2649, kbolsen@sdsu.edu

Irene Occhiello, JDP Coordinator 619-594-5586, iocchiello@sdsu.edu

Pat Walls, Doctoral Program Specialist & Assistant to the Associate Dean 619-594-2309, pwalls2@sdsu.edu

APPENDIX

Course Descriptions:

JDP Year 1 (SIO):

SIOG 200A. Geophysics Research Skills I—Effective Writing (2)

This course covers basic writing techniques, including discussion of strategies for effective writing and analysis of written materials. Writing techniques for scientific papers and proposals

will be covered. Students will be expected to do a writing sample in the form of an abstract or fellowship proposal. **Prerequisites:** graduate standing or consent of instructor. (S/U grades only.)

SIOG 200B. Geophysics Research Skills II—Effective Presentation Techniques (2)

This course reviews basic oral presentation skills (with and without slides), including overall structure of a presentation, how to prepare and how to deliver an effective talk. The course also covers effective figure design and color schemes. **Prerequisites:** graduate standing or consent of instructor. (S/U grades only.)

SIOG 200C. Geophysics Research Skills III—Reading, Understanding, and Synthesis (2)

In this course, students will read classic and recent papers revolving around two scientific themes. The context and presentation style of the papers are discussed and analyzed. Students will be expected to write short summaries of the papers. **Prerequisites:** graduate standing or consent of instructor. (S/U grades only.)

SIOG 223A. Geophysical Data Analysis I (4)

Probability and statistics and their application to make inferences from geophysical data: point processes, distributions, maximum likelihood estimation, hypothesis testing and confidence intervals, least squares, density estimation, interpolation and smoothing. **Prerequisites:** graduate standing or consent of instructor.

SIOG 223B. Geophysical Data Analysis II (4)

Analysis of geophysical measurements, especially time series, Fourier theory digital signal processing, and spectral analysis. **Prerequisites:** graduate standing and SIOG 223A or SIO 223A or consent of instructor. **Agnew.**

SIOG 225. Physics of Earth Materials (4)

Mathematics and physics of continuous media, focusing on geophysical problems. Topics include deformation, stress, conservation laws, elasticity, attenuation, viscoelasticity, fracture mechanics, and porous media. **Prerequisites:** graduate standing or consent of instructor. **Agnew, Fialko.**

SIOG 234. Geodynamics (4)

A general course on the dynamics and kinematics of the solid earth based on the text of Turcotte and Schubert. Topics include plate tectonics, heat flow, lithospheric cooling, flexure, viscous flow, gravity, crustal dynamics, and other related topics. **Prerequisites:** graduate standing or consent of instructor (S/U grades permitted). **Sandwell.**

SDSU, Year 2+:

GEOL 690. Earthquake Physics I

Structure and rheology of fault zones as inferred from geological and geophysical observations. Stress state and frictional behavior of faults, stress interaction models, thermal and hydrological properties of fault zones. Mechanics and energy budget of earthquakes. **Ma.**

GEOL 691. Earthquake Physics II

Theoretical and numerical models of earthquake rupture and wave propagation, with applications to ground motion prediction and seismic hazard estimation. Boundary conditions, Von Neumann stability analysis, accuracy, numerical dispersion. Convergence of numerical schemes. Staggered grids. **Olsen.**

Geol 638. Adv. Notable Historical Earthquakes

Earthquake magnitude, fault source physics and rupture mechanisms, earthquake location and ground motion estimation, geotechnical aspects, earthquake triggering and geodesy. Term project on a selected earthquake including computer-based analysis of source, mechanism, and location. **Olsen.**

GEOL 642. Neotectonics

Study of active crustal deformation, with an emphasis on paleoseismology. Includes field training in the study of past earthquakes as recorded in the geologic record along active faults. **Rockwell.**