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# SDSU-UCSD Joint Doctoral Program in Geophysics Student Handbook 2025-26

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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, David Sandwell (SIO) and Kim Olsen (SDSU).

# FINANCIAL SUPPORT

Students admitted into the Ph.D. program beginning Fall 2025 receive a one-year funding commitment, renewable for a maximum of five years, provisional on the availability of funding and remaining in 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, if funds are available from the PI.

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/research assistant duties, and their advisor's research. Students should refer to their offer letter or contact the SDSU Department of Earth & Environmental Sciences' 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 Earth & Environmental Sciences.

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, support toward health insurance, as well as funds toward the JDP students' stipend, if available. The funding model requires that the students TA (and in some cases RA) in the Department of Geology at SDSU whenever required. If feasible, first-year and 5<sup>th</sup>-year students are exempt from the TA duties. The JDP student's advisor(s) may provide additional funding toward the stipend amount, if available. Finally, a campus fee is usually covered by the JDP student's advisors, if funds are available. First-year students should refer to their offer letter for information about their financial support. While A student's advisor may choose to fund their student beyond the student's fifth year, tuition/TA/RA support for students after five (5) years is not guaranteed.

Fellowships and grants can provide additional funding for tuition/fees and stipend, and in the case of more than 3 admitted students per year, may be considered 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 \$30,000 plus benefits for one academic year, with an additional year of required matching support from an external funding source.

## Other Campus Employment

A student can seek employment through other departments or units on campus. Students must discuss additional employment with their advisor before accepting any offer of employment. The department wants to ensure that additional employment will not negatively impact the student's academic progress and will address how this employment may impact the student's current funding.

## Department Travel & Research Grants

The JDP provides small research grants to its students for travel and publications. The student should contact his/her advisor and the program co-director to apply for these funds.

## ADVISOR

The incoming JDP students are usually paired up with an advisor when they are admitted. All JDP students are required to finalize their advisor by the end of spring semester in the first Year. Typically, they are financially supported by their advisor at the onset of the program, and typically 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 (if funds are needed and available). In almost all cases, the JDP students stay with the same advisor throughout the program.

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, including funding sources.

The advisor-advisee relationship is critical to the success of graduate students. The department and the SIO Graduate Student Reps developed a list of advisor and student expectations. The list of expectations should serve as a foundational document, as advisors and students work together to develop a respectful and productive professional relationship. It can be found [here](#). Students and their advisor are expected to meet and discuss the contents of the document.

## Ph.D. TIMELINE/MILESTONES

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.** Coursework and departmental exam. Students complete core coursework. To be in good standing, students must maintain a GPA above 3.0, complete their core courses with a grade of B or better, and successfully pass the departmental exam for their curricular group, which will normally be scheduled during the end of spring quarter or summer of their first year.
- **Year 2.** Initial research. At the start of the academic year, the student should work with the advisor to determine objectives for the year. As an outcome of the departmental exam, the exam committee might communicate to the student specific requirements to address identified shortcomings (e.g. additional coursework or supervised projects). Requirements made by the exam committee should be addressed in consultation with the advisor and the student. By the end of **Year 2**, a student's research progress should be sufficient to contribute to the first chapter of their PhD thesis.
- **Year 3.** Advancement to candidacy (qualifying). At the start of the academic year, the student should work with the advisor to determine objectives for the year. Students should form their PhD thesis committee and are expected to qualify by the end of **Year 3**. The qualifying exam requires writing and orally defending (to the PhD committee) a thesis proposal that lays out a research plan for the PhD thesis.
- **Year 4.** Ongoing research. At the start of the academic year, the student should work with the advisor to determine objectives for the year. Students should meet with their PhD thesis committee at least once to check on progress since qualifying. By the end of **Year 4**, students are expected to have completed and written up research representing at least half of the material that will appear in the final dissertation. Ideally, this will have been submitted as at least one journal article, and a second article may be in preparation.
- **Year 5.** Defending. At the start of the academic year, the student should work with the advisor to determine objectives for the year. Students should be well on their way to finalizing their PhD thesis (e.g., research for all chapters is complete) at the end of **Year 5** in preparation for the upcoming defense. We recognize that there may be extenuating circumstances, and the student's advisor and the PhD thesis committee can agree to extend the student's academic timeline beyond **Year 5** if adequate justification can be provided and if funding is needed/available from the advisor. Advisors and committees often think of a thesis as having three substantive chapters, each of which could become a peer-reviewed paper, but this is not a formal rule. The student and advisor, in consultation with the committee, should agree on final expectations that are consistent with the students' research area and long-term career goals.

## PRE-QUALIFYING GUIDANCE COMMITTEE

Each first-year student is assigned a guidance committee. The guidance committee is charged with advising the student during the first year and until the student forms their doctoral committee. The intent is to provide individualized guidance to students, particularly regarding

advice about a course of study that may reach beyond a single curricular group. First-year students are expected to meet quarterly with their guidance committee to discuss coursework and, if applicable, research direction. First-year students are required to submit the [Quarterly Guidance Committee Meeting form](#) to the department's Graduate Coordinator. This form serves as a planning tool for the upcoming quarter. Starting in year two, students are expected to meet with their guidance committee annually until the student constitutes their doctoral committee. The student and their guidance committee should make every effort to hold a single, in-person meeting. However, if this is not possible, the student can meet separately with individual members of the committee.

## 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 (via TritonLink). 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. The Schedule of Courses lists course offerings and other pertinent information for a given quarter.

### SIO

First-year students are expected to enroll in a set of core courses at SIO. The schedule of the classes and other pertinent information for a given quarter can be viewed online via [Triton Link](#). 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 10<sup>th</sup> 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 <https://my.sdsu.edu/> for course addition, wait lists, and drop deadlines.

## ACADEMIC STANDING

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

- 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. The JDP co-director will work with the student and student's advisor to develop a plan, with the goal of raising the student's cumulative GPA, and removing them from academic probation by the end of the following quarter.
- 2) JDP students must earn a B or better in any required core course. A required course is defined as any course taken to complete the curriculum requirements. 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) Satisfactory completion of the Departmental Exam (in accordance with Department timelines).
- 5) Satisfactory annual Spring Evaluation.
- 6) Identify an eligible faculty member who agrees to guide the student's research and to serve as chair of the dissertation/thesis committee.
- 7) Obtain satisfactory annual Spring Evaluation.
- 8) 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.

### Probationary Status Policy

Probationary status within the Department is triggered in two ways: (i) unsatisfactory performance in courses (see above section "ACADEMIC STANDING") and (ii) failure to meet

performance standards on the Departmental and/or Qualifying exams.

The probationary procedures for failure to pass a Departmental Exam and/or Qualifying Exam are treated separately, though the overall process is similar in both cases. Please refer to the sections Departmental Exam and Qualification Exam sections for more information.

## 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(SIO)/semesterly (SDSU) 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. For a better understanding of the exam format and structure, you can find more details on the Departmental Exam [here](#).

## 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 institute 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 a student may take any required coursework in the quarter that they hold their qualifying exam. It is expected that the student will satisfactorily complete any outstanding coursework.

## Pre-Candidacy Geophysics Coursework Requirements

No single course of study is appropriate to every student in the geophysics curricular group: instead, there is a sequence of foundational classes that each student is expected to complete successfully during the first year. First year students usually enroll in:

The class requirements for the Geophysics graduate program consist of 50 units which are completed as follows.

1. Complete the foundational courses (26 units) in year one.
2. Complete an additional 10 units from the electives in year one.
3. Complete an additional 12 units of electives by the end of year three (but preferably earlier).
4. Complete the “Professional and ethical science requirement” (SIOG 232, 2 units) by the end of year three.

Note that you can complete the required course work in year one if you take 16 units per quarter (and then take SIOG 232 in year 2).

Foundational courses (26 units total)

- SIOG 200 a,b,c (2 units each = 6 units) - Geophysics Research Skills.
- SIOG 223 a,b (4 units each = 8 units) - Data Analysis.
- SIOG 225 (4 units) - Physics of Earth Materials.
- SIOG 234 (4 units) - Geodynamics.
- SIOG 238 (4 units) - Practical PDEs.

Electives

- SIOG 224 (4 units) - Internal Constitution of the Earth.

- SIOG 227a (4 units) - Introduction to Seismology.
- SIOG 227b (4 units) - Structural Seismology.
- SIOG 227c (4 units) - Earthquake Source Seismology.
- SIOG 229 (4 units) - Gravity and Geodesy.
- SIOG 230 (4 units) - Inverse Theory.
- SIOG 231 (4 units) - Geomagnetism and Electromagnetism.
- SIOG 233 (4 units) - Introduction to Computing.
- SIOG 235 (4 units) - Computational Inverse Problems.
- SIOG 236 (4 units) - Satellite Remote Sensing.
- SIOG 237 (2 units) - Space Geodesy.
- SIOG 239 (1 unit) - Seismology seminar.
- SIOG 240 (4 units) - Marine Geology and Geophysics.
- Sometimes special topics courses (SIOG 239) are offered, and these courses also count as electives.

Students may also take the following graduate courses in the geosciences graduate program as electives:

- SIOG 242 - Rates and Dates.
- SIOG 246 - Global Tectonics and Basin Formation.
- SIOG 251 - Whole Earth Geochemistry.
- SIOG 253 - Interactions of Oceanic Plates and CA Margin.

### **Elective Coursework at SDSU:**

At Year 2+, JDP students may 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) at SDSU. See Appendix A for descriptions for these courses. Please contact the Department to inquire whether the courses are being taught.

## **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 Earth & Environmental 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.

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.

If a graduate student is employed by a company outside of UC San Diego/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 JDP co-directors of the situation and any possible conflict of interest. Upon review, the JDP co-directors 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](mailto:gbretado@ucsd.edu)) and copy SDSU graduate coordinator Irene Occhiello ([iocchiello@sdsu.edu](mailto: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

Qualifying Exams can be held in-person, virtually, or a combination of both. The committee chair and “upper campus” member must participate in the exam. One member of the committee, outside of the chair, can be absent from the exam. The student will need to make arrangements to present to that member prior to the exam. That member should forward any questions to the committee chair, to be discussed at the exam.

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

Prior to the exam, the Graduate Coordinator will submit the paperwork through Docusign and route it to the appropriate parties for electronic signature.

The Report of the Qualifying Examination and Advancement to Candidacy form must be signed by all committee members and the departments’ chairs. Following this, the student will receive a copy of the form and a letter from Graduate Division that confirms their advancement to candidacy.

## QUALIFYING EXAM PROBATION

In the event that a student does not pass the Qualifying Exam, the student will be placed on probation and the following outlines the probationary process.

1. Written notification. Upon unsatisfactory performance in the Qualifying exam, the advisor notifies the JDDP co-directors that a student has not passed the exam. The written notification should include a concise description of deficiencies in student performance. In many cases, the student may be placed on probationary status and given an opportunity to pass the same exam, or a modified form thereof, at a later date.

2. Define a pathway to success. Following the unsuccessful exam, the advisor and committee should write down the reasons the student was unsuccessful in the exam, keeping in mind the written expectations. Expectations for the Qualifying Exam are described in “QUALIFYING EXAM AND ADVANCEMENT TO CANDIDACY”. The advisor and student should meet to develop a precise and actionable written plan for remedying weaknesses in the exam. This plan may include, but is not limited to: coursework, additional experiments, readings, writing workshops, additional data analysis or modeling, etc. This written plan should be shared with the committee and curricular group lead, and approved by all in writing. The plan should include specific milestones, action items, and objectives, as well as a timeline for completion. The goal of the plan is to define a clear and actionable plan for the student to successfully pass the exam in question.

3. Define a realistic timeline for re-examination. The probationary period should typically range from one to six months, but may be up to 12 months at the discretion of the committee. The student should retake the exam, or a modified form thereof, at a specified duration after the initial unsuccessful attempt. During this period, the student should continue to meet with the advisor as normal. For longer and more involved probationary periods, it is recommended, but not required, that the student schedule an additional committee meeting. During this period, the student should document how and when they meet the expectations of the probationary period. Both the advisor and student should refer to the agreed-upon plan.

4. Re-examination. By the agreed-upon deadline, the student will retake the unsuccessful examination, or a modified form thereof. If the committee agrees, written materials can be submitted and approved in lieu of organizing a committee meeting. If the committee agrees that the student has met expectations for the exam, the student is taken off probationary status and continues with their degree as per usual. At this point, the Graduate Coordinator will resubmit the Advancement to Candidacy paperwork. If the committee finds that the student has failed to reach stated milestones or make reasonable progress towards achieving stated milestones, the student will either be advised to seek a new thesis advisor, if that option is available, or be terminated from the doctoral program. In the event that the student disagrees with the committee’s re-examination assessment, the student may appeal in writing to the JDP co-directors. The probationary process requires the involvement of the advisor, student, and committee. The goal is to facilitate student success through a precise and actionable plan with realistic timelines. This plan must be discussed and agreed upon by all parties.

## 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. As part of the preparation process, the Graduate Coordinator will submit the Final Defense paperwork through Docusign and route it to the appropriate parties for electronic signature. The committee members are required to sign the form, indicating whether the student passed.

## 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.

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

- Currently, the Filing Fee is \$215, but is subject to change
- Students do not pay the Filing Fee until all other degree requirements, including the defense of the doctoral dissertation are completed.

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

## ORAL DEFENSE AND FINAL EXAM

A final defendable 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.

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 (coordinate with SDSU Graduate Coordinator Irene Occhiello).
2. Notify the SIO Graduate Coordinator, [Gilbert Bretado](#) and 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, location of the defense, and zoom link (if offering this option). If your defense title will be different than your dissertation title, let the Graduate Coordinators know at this time. The SIO and SDSU Graduate Coordinators will prepare the final defense report, as well as the public announcement of your defense. The SIO and SDSU Graduate Coordinators will also confirm the members of your doctoral committee, your major, and official spelling of your name (for diploma purposes).
3. Apply for graduation at SDSU - check with coordinator Irene Occhiello ([iocchiello@sdsu.edu](mailto:iocchiello@sdsu.edu)). 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.
4. 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 at UCSD.

5. When writing your dissertation, follow closely the formatting guidelines required by UCSD. Reference the Dissertation Theses Formatting Manual for guidance.
6. 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.
7. 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 send to Pat Walls.
8. 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.

9. Students can review the filing for degree process here, [Preparing to Graduate](#), and here, [Dissertation and Thesis Submission](#). Student submits “File for Doctoral/Master’s (Thesis) Degree” form, ideally by week 4 of the graduation term. GEPA Academic Affairs reviews the student’s academic record and notifies the student of any necessary corrective action/s. At this point, the student may request an optional formatting pre-check (through the Kuali form). If a pre-check is requested, the student is notified via email once the dissertation/thesis is reviewed (feedback on formatting will be provided in the Kuali form). Student then follows the “Final Degree Checklist” in the Kuali “File for Degree” form, submitting the checklist when all items are complete. The GEPA advisor is notified that all final degree paperwork is submitted. GEPA reviews the student’s final degree paperwork. If there are any issues, the GEPA advisor contacts the student via email.
10. The JDP-5 form is sent out through AdobeSign for signatures from all members of your committee, the SDSU (Kim Olsen) and the UCSD (David Sandwell) co-directors.
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. Contact Pat Walls ([pwalls2@sdsu.edu](mailto: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. The JDP-5 form is sent out through AdobeSign to the UCSD Librarian and the SDSU Graduate and Research Affairs signature (Pat Walls) for signatures.
14. Send a copy of your dissertation to Montezuma Publishing (Pat will instruct you on how to do this).

## 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, who wish to use Surfside, must submit the [Surfside Reservation form](#) at least three weeks in advance.

# **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.ucsd.edu](mailto:Ph.D.-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 Graduate Coordinator.

[phd-students@sio.ucsd.edu](mailto:phd-students@sio.ucsd.edu) - All Ph.D. Students

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

[gp-students@sio.ucsd.edu](mailto:gp-students@sio.ucsd.edu) - GP students

[gp-seminar@sio.ucsd.edu](mailto: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 geograde email list, [geograde@sdsu.edu](mailto:geograde@sdsu.edu) and to the [geostudents@sdsu.edu](mailto:geostudents@sdsu.edu) email list as well, [geostudents@mail.sdsu.edu](mailto: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, [Dennis Brand](#).

### **SDSU**

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

## **TRANSPORTATION AND PARKING**

### **SIO**

Students who wish to park on the SIO campus 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 can purchase a "B" (staff) or "S" (student) permit. In addition, any SIO student wishing to park in a SIO lot, with a UC San Diego B or S parking permit, must obtain the SIO supplemental permit. The supplemental permit has no additional charge. Current UC San Diego parking permit rates, instructions for purchasing a permit, and further information regarding parking and transportation services (free bus passes, rideshare options, SIO/UC San Diego Shuttle, etc.), are available at <https://transportation.ucsd.edu/>.

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

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](mailto: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 of 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 U-Pass. Please note that students are not eligible for the U-Pass during the summer, unless they are registered for summer session. Also, the Triton Commuter Club recognizes and rewards your actions to reduce the traffic, parking and environmental impacts of driving alone. Whether you're coming to campus daily, learning and working from home, choosing lower-impact modes every day or mixing up your commute, you can reduce your impact and earn rewards.

## **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. JPD 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.

## 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. Ph.D. students will be assigned office space from the business office of their Research Division. Some units may require deposits ranging from \$15 per key. You must remain a registered student to be eligible for office space. Upon leaving, 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 ask your advisor. If you are an incoming student and do not have an advisor, please contact the department office, Gilbert Bretado [gbretado@ucsd.edu](mailto:gbretado@ucsd.edu), or Shelley Weisel [sweisel@ucsd.edu](mailto:sweisel@ucsd.edu)

Business Office Staff Contact Position Email Phone

| Business Office | Staff Contact | Position                | Email                                                  | Phone  |
|-----------------|---------------|-------------------------|--------------------------------------------------------|--------|
| CASPO           | Will Rivera   | Facilities/Offices/Keys | <a href="mailto:wrivera@ucsd.edu">wrivera@ucsd.edu</a> | 4-1875 |
| CMBB--MBRD      | Dejan Ristic  | Facilities/Offices/Keys | <a href="mailto:dristic@ucsd.edu">dristic@ucsd.edu</a> | 2-1229 |
| GRD             | Megan Smith   | Facilities/Offices/Keys | <a href="mailto:mas006@ucsd.edu">mas006@ucsd.edu</a>   | 4-6852 |
| IGPP            | Megan Smith   | Facilities/Offices/Keys | <a href="mailto:mas006@ucsd.edu">mas006@ucsd.edu</a>   | 4-6852 |
| IOD             | Dejan Ristic  | Facilities/Offices/Keys | <a href="mailto:dristic@ucsd.edu">dristic@ucsd.edu</a> | 2-1229 |
| MPL             | Will Rivera   | Facilities/Offices/Keys | <a href="mailto:wrivera@ucsd.edu">wrivera@ucsd.edu</a> | 4-1875 |

### 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 an email with the subject line, UPD - Authorization for Campus Access.

# JDP PROGRAM CONTACTS

## SIO

David Sandwell, UCSD JDP co-director.

Josh Reeves, Student Affairs Manager  
[jdreeves@ucsd.edu](mailto:jdreeves@ucsd.edu)

Program administration and oversight of student services: including both undergraduate and graduate advising services, instructional services, admissions and recruitment, and teaching assistantships

Gilbert Bretado, Graduate Student Affairs Advisor  
[gbretado@ucsd.edu](mailto:gbretado@ucsd.edu)

Ph.D. 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  
[dljimenez@ucsd.edu](mailto:dljimenez@ucsd.edu)

MS advising, advancement to candidacy and defenses, new student orientation, recruitment and outreach, diversity coordinator, leave of absence, withdrawal, and re-admissions.

Carrie Owen, Instructional Scheduling Coordinator  
[c2owen@ucsd.edu](mailto:c2owen@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  
[sweisel@ucsd.edu](mailto: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  
[mpmcmcgreevy@ucsd.edu](mailto:mpmcmcgreevy@ucsd.edu)

Financial administrator: student travel and seminar reimbursement, purchase orders, faculty start-up funds

Denise Darling, Department Manager  
[ddarling@ucsd.edu](mailto:ddarling@ucsd.edu)  
Department Chair and Program Directors

Dr. Eric Allen, Department Chair  
[eallen@ucsd.edu](mailto:eallen@ucsd.edu)

Dr. Yuri Fialko, Vice Chair  
[yfialko@ucsd.edu](mailto:yfialko@ucsd.edu)

Dr. Lihini Aluwihare, Program Director, SIO Department Education  
[laluwihare@ucsd.edu](mailto:laluwihare@ucsd.edu)

Dr. Joel Norris, Program Director, Climate-Ocean-Atmosphere Program (COAP)  
[jnorris@ucsd.edu](mailto:jnorris@ucsd.edu)

Dr. Katherine Barbeau, Program Director, Geosciences of the Earth, Oceans, and Planets (GEOP)  
[kbarbeua@ucsd.edu](mailto:kbarbeua@ucsd.edu)

Dr. James Leichter, Program Director, Ocean Biosciences Program (OBP)  
[jleichter@ucsd.edu](mailto:jleichter@ucsd.edu)

SIO Ombuds\* Contacts

Dr. Paul Jensen, Ombudsperson  
[pjensen@ucsd.edu](mailto:pjensen@ucsd.edu)

Dr. Jennifer MacKinnon, Ombudsperson  
[jmackinnon@ucsd.edu](mailto: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](mailto:kbolsen@sdsu.edu)

Irene Occhiello, JDP Coordinator 619-594-5586, [iocchiello@sdsu.edu](mailto:iocchiello@sdsu.edu)

Pat Walls, Doctoral Program Specialist & Assistant to the Associate Dean 619-594-2309,  
[pwalls2@sdsu.edu](mailto:pwalls2@sdsu.edu)

## **APPENDIX**

**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.**