BYLAWS OF THE GRADUATE GROUP FOR AN INTER-CAMPUS DOCTORAL PROGRAM AND DESIGNATED EMPHASES IN COMPUTATIONAL PRECISION HEALTH

University of California, Berkeley

University of California, San Francisco

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BYLAWS[1]

Administrative Home(s): Division of Computing, Data Science, and Society (UC Berkeley); Office of the Executive Vice Chancellor & Provost (UCSF)

Revision date(s):

Version 1.4 (2/8/23): Formatting changes in accordance with UCSF bylaws requirements (throughout); revised term of AGG membership renewal from 3 years to 2 years (p. 6); added Change in Membership Level; added of policy for Emeriti faculty (p. 6); changed expectation for service for Type 2 Affiliate faculty (p. 5); added policy on web-based balloting (p. 17); added policy on membership appeal process (p. 7)

Version 1.3 (9/19/22): Changed term of Admissions Committee from 3 years to 1 year (p. 12)

Version 1.2 (4/18/22): Addition of process for cases related to a breach of the Faculty Code of Conduct (p. 8); Clarification of expanded voting rights of Type 1 faculty (p. 9)

Graduate Council Approval(s): UCSF Graduate Council Approval 4/20/23

ARTICLE I: Objective

A. Degree(s) offered by the program: The joint Augmented Graduate Group in Computational Precision Health (CPH) shall establish and administer a graduate program of instruction and research leading to either a PhD in Computational Precision Health (joint between UC Berkeley and UCSF) or a Designated Emphasis (DE) in Computational Precision Health (distinct DEs administered by each campus).

B. Discipline: A brief statement on the discipline(s) of the program:

As an inherently interdisciplinary field, Computational Precision Health shares overlapping domain and methodological expertise with computer science and computing more broadly, electrical engineering, biostatistics and statistics, biomedical informatics, bioengineering, computational biology, epidemiology, and translational health sciences. The interdisciplinary and diverse nature of academic and research interests of the faculty participating in this program provide the student with a broad scope of educational opportunities. The election of an Executive Committee (as described in Article 3) to monitor the activities of the Designated Emphasis and doctoral programs in the Augmented Graduate Group in CPH, will assure rigorous training for all students pursuing the joint PhD or one of the two campus-specific DEs in Computational Precision Health. Type 1 faculty in the Joint Augmented

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[1] The Bylaws were ratified by a vote of the AGG 12-19, September 2022. Amendments reflected in the current version were ratified by a vote of the AGG 31 January-7 February 2023.

Graduate Group have primary appointments in CPH; Type 2 faculty are from multiple home departments at UCSF and UC Berkeley, and UCSF faculty hailing from clinical sites across a diversity of populations and care settings. Membership types are described below.

C. Mission of the Program:

The Joint Augmented Graduate Group in Computational Precision Health administers a graduate program of instruction and research, culminating in a PhD degree.

The educational mission is to leverage and bridge complementary expertise and distinct cultures of UCSF and UC Berkeley to offer a world-leading graduate training program in Computational Precision Health; to support faculty and students with new avenues for transdisciplinary collaborations, anchored in the strengths of both campuses; to establish a unique shared learning environment across campuses in close collaboration with existing programs; and to provide a robust intellectual home and research-focused education and training opportunity for jointly-raised scholars to apply discoveries in clinical and population health settings equitably and effectively.

A further goal of the CPH AGG is to support a joint UC Berkeley-UCSF Designated Emphasis in Computational Precision Health that will matriculate students enrolled in PhD programs at both campuses and allow for cross-campus courses to be credited towards the DE. However, given that the administrative structures for this do not exist at the current time, the current bylaws assume the existence of two campus specific DEs, with relevant committees and governance structures described below and consisting exclusively of faculty from the home campus corresponding to the DE.

ARTICLE II: Membership

A. Criteria for Membership; Membership Types

Membership in the Augmented Graduate Group is open to faculty of the UC Berkeley and UCSF campuses who are actively engaged in teaching and research in the program's various sub-fields and who wish to join the Augmented Graduate Group. Members of the Augmented Graduate Group are appointed by the Dean of the Graduate Division of their home campus (following a vote by the AGG) according to the processes detailed below, and reviewed by the UC Berkeley Budget and Interdepartmental Relations Committee.

There are three levels of membership in the the CPH Augmented Graduate Group:
1. **Type 1 Core faculty**, who hold either academic-year or fiscal-year FTE appointments in the Augmented Graduate Group.[2]

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[2] Currently, we do not include a process for existing faculty at UC Berkeley or UCSF to transition to Type 1 membership. Should this be considered desirable in the future, the bylaws will be updated to reflect this, according to due process.

2. **Type 2 Core faculty,** who hold primary appointments in an affiliated Department at either the UC Berkeley or UCSF campus with a 0% above-the-line appointment in the CPH AGG and for whom a minimum level of teaching and service is expected in the CPH AGG, as detailed below; and,

3. **Affiliated faculty**, who also hold primary appointments in an affiliated Department at either UC Berkeley or UCSF, requiring a minimum level of AGG participation as detailed below (section 2 of Membership Procedures).

B. Voting rights

AGG and Graduate Program matters will be determined by vote: all Core members of the Augmented Graduate Group are entitled to a full and equal vote on personnel and other matters; Affiliate members may be called upon by program leadership to lodge an advisory vote. Other items pertaining to voting rights can be found in Article III Academic Personnel Matters & Procedures.

C. Membership Procedures

1. How faculty may apply:

   Initial membership in the CPH Augmented Graduate Group will require CPH Faculty approval through a formal vote with guidance from the CPH Executive Committee. All Type 1 faculty will be members of the Augmented Graduate Group. Type 2 Core faculty and Affiliated faculty will be considered for membership in the Augmented Graduate Group through the following process: interested faculty members will submit to the Executive Committee (cf Article 3) a curriculum vitae and a letter stating the reasons and qualifications of the faculty member for membership in the Augmented Graduate Group. Core members of the Augmented Graduate Group must belong to the Academic Senate. Following a vote by the Core Augmented Graduate Group faculty, members shall be appointed by the Dean of the Graduate Division of the member's home campus. A simple majority of the casted votes by core faculty shall suffice for appointment.

2. Anticipated contributions that graduate faculty members will perform

   Core faculty are eligible to chair Qualifying Exam and dissertation committees. Furthermore, they are entitled to a full vote on any personnel matter for which a vote of the Augmented Graduate Group is required. Core membership in the Computational Precision Health Graduate Group requires participation in CPH program-related activities in at least three of the following four areas. Type 1 Faculty are expected to participate in all four areas.

   a. **Regular attendance and participation at the CPH faculty meetings** except when on approved long or short-term leave and monthly CPH seminars (as much as possible).

   b. **Service to the CPH community**. Examples of service include participating on faculty search committees, training and instruction, executive, diversity, other administrative committees, and/or ad hoc committees; service as faculty mentor; participation in Computational Precision Health PhD or DE admissions and recruitment activities

including interviews, events, application review; PhD Head Graduate Advisor or other leadership roles.

c. **Teaching**. As part of their teaching requirement, Type 1 Core faculty are expected to fulfill all teaching requirements within the CPH program (unless otherwise specified in MOU or with permission of the CPH Directors). Teaching service within the program includes serving as Instructor of Record/Course Director for the Cornerstone course, Doctoral Seminar, or Practicum. Type 2 CPH faculty are expected to annually either: 1) offer at least one guest lecture in the CPH Doctoral Seminar; *or* 2) serve as a "faculty consultant" (equivalent to one two-hour course period) for the Cornerstone course; *or* 3) serve as a host for the Practicum. Type 1 or Type 2 faculty (with approval of their home Department Chair, if applicable) can also propose a new CPH graduate course to be taught and a syllabus and outline for the planned course as well as a concrete plan for when the course will be offered.

d. **Participation in non-didactic graduate education in CPH**. Examples of participation include direct mentorship of CPH graduate students, graduate student academic advising, service on the graduate admissions committee, service on CPH or DE student qualifying exam and dissertation committees. Type 1 faculty are expected to chair Dissertation Committees of doctoral students within the program as a core component of their evaluation for promotion.

Affiliate faculty are also members of the CPH Augmented Graduate Group. Affiliated faculty who are Academic Senate members and have the same home campus as a student may serve as Academic Senate Representatives (or outside members) on Qualifying Examination or dissertation committees. Affiliate members may also serve as Additional Members on Qualifying Examination or dissertation committees and as co-Chairs of Dissertation Committees irrespective of their home campus or the student's home campus. All Affiliate faculty, whether Academic Senate members or not, may teach in the program, serve as faculty consultants in the Cornerstone series, or provide guest lectures in the seminar series. To maintain Affiliate status, Affiliate faculty must participate in at least one of the areas listed above in each academic year of membership. Affiliate faculty appointed midway through the academic year may discuss their capacity for participation in that academic year at the time of appointment. All Affiliate faculty will be invited to attend retreats and graduate group meetings. Affiliated faculty are not entitled to a full vote on personnel, curriculum, and other matters that come before the Augmented Graduate Group; however, the (co-)Director(s) of the Augmented Graduate Group may request an advisory vote.

3. Compliance with University policies and program values
   Program faculty are expected to comply with all University policies and uphold the values of the training program, including but not limited to: the University Code of Conduct (APM-016); UC Policy on Sexual Violence and Sexual Harassment; the UC Policy on Discrimination, Harassment,

and Affirmative Action in the Workplace; and policy on scientific misconduct and/or financial improprieties.

D. Emeritus Status

Emeritus faculty with active research programs may remain members of the program and are afforded the following rights: they may attend and participate in program activities (including meetings and administrative committees), may teach graduate courses, and may serve on student committees. Emeritus faculty on the Executive Committee may vote on policy and bylaw issues related to the program.

E. Review of Membership

The criteria for reviewing members of the program is the same for all members of the same membership type. Membership renewal for Type 2 faculty will occur every two years using the following process for all members eligible for term renewal:

1. Obtaining relevant information:
    To ensure compliance with these requirements the Program Director(s) and Executive Committee need to have the relevant information about faculty conduct. While information about faculty participation in program events and training is readily attainable, information about other types of violations may be difficult to obtain if, for example, the University is not forthcoming with information about faculty violations of University policies, or an individual who experiences a hostile interaction in the workplace does not report it. Thus, considering the different types and sources of information that are needed, the CPH Program proactively seeks to track compliance with these requirements in multiple ways, as described below.

2. The Executive Committee will review submitted documentation detailing contributions in teaching and service in the aforementioned four areas required for CPH core membership, as well as documented research contributions in the area of Computational Precision Health; 2) based on this evaluation, the Executive Committee will propose a slate of Type 2 members to the AGG for a vote on reappointment; 3) following a vote by the Augmented Graduate Group faculty, members shall be re-appointed by the Dean of the Graduate Division of the member's home campus.

    A simple majority of the casted votes by core faculty shall suffice for re-appointment. This process shall also serve as the mechanism for removing inactive members; members found to not be meeting required contributions in teaching and service will be noted during review by the Executive Committee, notified, and not proposed on the slate for reappointment.

3. Violations of program expectations for faculty conduct

CPH Faculty Directors, Executive Committee, and program staff are in frequent communication with trainees, faculty, the Graduate Divisions, and administration of both universities to monitor for compliance with all membership policy requirements. This can include reports from the Bias Response Team (once it has been established) or other communications from the Graduate Divisions, and communications from the universities about faculty violations of the University Code of Conduct. The Executive Committee will promptly revoke program membership at any time upon learning about faculty conduct detrimental to the program or the safety and welfare of its members. Examples of evidence of this type of detrimental conduct include (but are not limited to), official findings by the University that a faculty member has violated Title VII or IX, or legal determinations of guilt (including settlements out of court) that may not have resulted in a University sanction. In addition, faculty may also be put on suspension or removed from the program for conduct that has not resulted in a University or legal sanction but nonetheless has been determined by the Executive Committee to be detrimental to the program or the safety and welfare of its members. This may include serious or sustained actions that create a hostile work environment such as a pattern of racist, sexist, or homophobic remarks or behavior, or a significant lack of professionalism or integrity.

Additional details regarding Academic Personnel Matters and Administration can be found in *Article III Academic Personnel Matters & Procedures*

4. Reporting on Annual Activities
   Augmented Graduate Group members will submit an annual report on CPH activities each year, and will receive notification of the anticipated review cycle, and the intervening year report cycle from CPH administration.

5. Change in membership level
   Current Type 2 members of the Augmented Graduate Group may petition for a change in membership level (from Affiliate to Core, or from Core to Affiliate) by submitting a letter detailing the reason for the request. This documentation may be submitted during any period of consideration of new members, or as part of the membership renewal process.

F. Membership Appeal Process
If membership is denied or not renewed, faculty may appeal to the Executive Committee for reconsideration.

Article III Academic Personnel Matters & Procedures
The ultimate determination of academic personnel matters and procedures awaits the outcome of discussions between the leadership of the two campuses , and will be formalized in an MOU as appropriate .[3]In the interim, the following provisions are in place

1. Salary, benefits, and other conditions of employment of all existing faculty in the AGG (affiliates and Type 2) will be administered solely on the campus on which they are currently appointed.
2. Any academic personnel review of existing faculty in the AGG (affiliates and Type 2) with a July 1, 2022 or earlier effective date will be conducted solely on the campus on which they are currently appointed and without reference to their appointment in the AGG. For subsequent actions, the AGG will provide information about service and teaching in the AGG unless the AGG should come to hold a positive fraction of the faculty member's FTE, in which case review will be conducted in a matter to be determined.
3. Until the ultimate determination of how academic personnel matters and procedures will be handled for those newly appointed to the AGG as Type 1 faculty, the appointment process within the AGG must accord with the appointment processes of both campuses; moreover, both campuses will review these appointments independently according to their established procedures except insofar as agreement must be reached with regard to rank, step, and salary. It is to be expected and hoped that the campuses will arrive at an agreement for the determination of how academic personnel matters and procedures will be handled prior to any appointment cases being submitted to the campuses for campus-level review.
4. At the request of UC Berkeley's Budget and Interdepartmental Relations Committee, all personnel cases, including appointments, that require a vote must report the vote separately by the campus of the voters' affiliation. Type 1 faculty are considered to have joint affiliation, so their votes should be reported for both. So, as an example, if the voters consist of four Type-1 faculty, 10 Type-2 faculty with UCB affiliation, and 12 Type-2 faculty with UCSF affiliation, the vote would be reported as 14 UCB faculty (including 4 Type-1 faculty) voted 12 to 2 in favor of the action; the 16 UCSF faculty (including the 4 Type-1 faculty) voted 13 to 3 in favor of the action.Type 1 core faculty will be allowed to hold 0% "above the line" appointments in a secondary Department at either UCSF or UC Berkeley (subject to all standard Department-specific appointment procedures and completion of relevant MOUs.)
5. Once the ultimate determination of how academic personnel matters and procedures will be handled for Type 1 (jointly appointed) faculty in the AGG, the AGG faculty will convene to amend their bylaws, if necessary, to accord with that ultimate determination.

6. Any cases related to a breach of the Faculty Code of Conduct (APM015) will be investigated by the campus on which the allegation of misconduct is reported. The other campus will be informed that an investigation is in progress, and any report following the investigation will be shared with both campuses. Type 1 faculty, who are members of both divisional Senates, will have recourse only to the bylaws and Privilege and Tenure procedures of the campus through which they were originally appointed.

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[3] Please see letters of support from UCSF Vice Provost for Academic Affairs and UC Berkeley Vice Provost for the Faculty, available upon request.

7. As members of both the UCSF and UC Berkeley Academic Senates, Type 1 faculty will be able to vote on divisional matters at both UCSF and UC Berkeley, with a full vote at each campus, at the campus level. For systemwide votes, Type 1 faculty may only vote once, as a member of the campus at which they were originally appointed. Type 1 faculty may represent either campus, but not both campuses, on any system wide Senate body.

ARTICLE IV: Administration

Administration of the Program and its activities is vested in the Program Directors, and Executive Committee.

A. Financial and Space Commitments

Letters from the Executive Vice Provosts to the Chancellor of both campuses, committing space and financial resources to support the UCSF UC Berkeley Augmented Graduate Group in Computational Precision Health, including philanthropic funds, are attached.

B. Administrative staffing

Administrative staffing will be provided by a Senior Administrative Officer and Graduate Student Administrative Officer(s) (GSAO). The SAO will be a full-time staff member reporting to the Directors, and be responsible for program operations and have administrative and oversight duties related to Student Financial Support, Budget (in consultation with CDSS CFO), Program evaluation and accreditation, and other tasks. The GSAO(s) will be full-time staff members reporting to the SAO and be responsible for student support services. GSAO(s) for CPH will maintain close contact with GSAO(s) of PhD programs with students actively enrolled in the campus-specific Designated Emphases, and communicate biannually at a minimum. The truly joint nature of this program will be reflected in the listed staff roles; all staff will be responsible to support the entire community based in the joint program rather than a particular campus, and will be familiar with procedures at both UC Berkeley and UCSF to build a cohesive program. Staff will be hired administratively by one campus and placed on part-time assignment to the other campus joint program via the standard UC multi-location agreement process.

C. Space provisions

The CPH program will first move into contiguous dedicated space initially earmarked at Warren Hall at UC Berkeley until the new Gateway Building opens, at which point the program will relocate to Gateway. At UCSF, the program will have contiguous space at Mission Bay, where there is adjacency with Bakar Computational Sciences Institute and Clinical and Translational Science Institute faculty and staff, an easier commute across the Bay, and connectivity to our hospitals and clinical staff. Space use will be designed to facilitate presence at both campuses and informal and formal scholarly exchange.

D. Student Support

The program will ensure that full financial support is identified for each student to pay their tuition and fees (and Nonresident Supplemental Tuition, when necessary) and an annual stipend for five

years, the program's normative time to degree. Full financial support will be provided to all students maintaining satisfactory academic progress. The stipend level for all PhD students will be the same regardless of the student's home campus; the stipend will be based on the higher stipend level between the two campuses, whichever provides students the greater benefit.

ARTICLE V: Leadership

Leadership of the Augmented Graduate Group (AGG) and corresponding Program in Computational Precision Health will consist of:

1) Program Director(s), who shall be appointed by the Executive Vice Chancellors & Provosts (EVCP) of their respective home campuses. For future Directors (beyond the current inaugural appointments), the EVCPs will consult with the CPH AGG faculty to assess who they would recommend.[4]
2) An Executive Committee, which shall be elected by the "Core" (voting) members of the Augmented Graduate Group

The selection process, responsibilities, and roles for the Executive Committee are described in Article 3.

The responsibilities and shared duties of the Program Director(s) include the following:
- Direct the strategic growth of the CPH Program including but not limited to the growth of graduate program offerings
- Represent the CPH Program in interactions with the UC Berkeley and UCSF campus leadership, external organizations, programs, and students
- Oversee funding and resources of the program
- Engage actively in philanthropic and extramural fundraising
- Serve in academic personnel matters and procedures in accordance with Article 2.4 (finalization of which awaits the outcome of discussions between the leadership of the two campuses.)
- Represent the Augmented Graduate Group membership in official matters pertaining to the program
- Meet at least annually with the Chairs of the affiliated PhD programs, including those whose faculty are Type 2 core members of the AGG in Computational Precision Health, to discuss administrative, instructional, and research resource needs
- Assign initial Academic Advisors for PhD and DE students
- Recommend a Head Graduate Advisor to the respective Deans of the Graduate Divisions of the two campuses
- Appoint an Equity Advisor to the program

Article VI: Committees

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[4] Were the group ever to become non-augmented, then the Chair or Chairs of the group should be elected by the faculty; this would entail an update to the bylaws.

A. Executive Committee

The administrative leadership of the Augmented Graduate Group shall be vested in an Executive Committee consisting of five members, at least two faculty from UC Berkeley and at least two faculty from UCSF. Members of the Executive Committee will be elected from among the core membership of the Augmented Graduate Group. Executive Committee members must belong to the Academic Senate. The Head Graduate Advisor and Equity Advisor will serve as ex officio members of the Executive Committee.

Nominations to the Executive Committee shall be made by the Nominating Committee (cf Article 5). Any core member of the AGG may submit nominations directly to the Nominating Committee to be included in the slate of candidates submitted to the membership. Election of the Executive Committee is by electronic ballot and shall be completed by at least 3 weeks before the end of the spring semester. The term of office will be two years following selection. Election results shall be announced to the membership by electronic mail. Newly elected members shall assume their duties on July 1st of each year. In the initial election following approval of the Group, the four members receiving the largest number of votes shall serve a two-year term, the remaining member a one-year term. The existing Executive Committee shall fill interim vacancies in its membership by appointment.

The principal responsibilities of the Executive Committee are:

- To review faculty membership for the Augmented Graduate Group and maintain a list of active members to be annually reported to the respective Deans of the Graduate Divisions of the two campuses
- To oversee Type 2 faculty membership and reappointment in the Augmented Graduate Group , as described in Article 2
- To review existing affiliations and explore new partnerships with other graduate programs and Designated Emphases and make appropriate recommendations to the Deans of the Graduate Division.
- To appoint the standing committees described in Article 5 below, including Chairs of these committees, and other *ad hoc* committees as needed.
- To oversee the faculty mentorship program
- To review and act on the recommendations of the Diversity Committee as appropriate
- To coordinate with the Augmented Graduate Group's Departmental partners across both campuses.
- To outreach to other academic institutions, government, and industry for student funding, collaborative projects, internships, and career placement.
- To lead review of and suggest updates to the bylaws as needed.
- To conduct administrative and clerical matters related to the activities of the Augmented Graduate Group.

Decisions of the Executive Committee will be passed by a majority vote of the whole committee or of those present when meeting virtually or in-person. A calendar of events and meetings will be established at the beginning of each academic year. The Executive Committee shall meet at least once

every semester to discharge their duties with respect to the Augmented Graduate Group in Computational Precision Health.

The following committees will be appointed by the Executive Committee and have the following responsibilities:

B. Admissions Committee

Prospective students will fill out one application at UC Berkeley which will be reviewed by a joint admissions committee. The Admissions Committee shall number at least 6 members serving renewable 1-year terms, comprising all Type 1 core faculty members of the Augmented Graduate Group in CPH and shall be open to Type 2 faculty (cf. Article 2). It shall include balanced representation of faculty from both campuses. The committee shall include one non-voting student representative, selected via student nomination and student vote. A Diversity, Equity and Inclusion (DEI) officer (or "Equity Advisor") will serve in addition to the Faculty representatives on the Admissions Committee. The committee shall meet yearly and as needed, with responsibilities as follows:

- To review, and recommend for approval, graduate student applications to the PhD program.
- To review, and recommend for approval, graduate student applications to the campus-specific Designated Emphases. As UC Berkeley and UCSF will operate distinct Designated Emphasis programs (at least until such time as an official mechanism has been identified and approved by all appropriate governance bodies to allow for a joint campus Designated Emphasis), review of DE applications will be conducted only by those members of the Admissions Committee with a home campus corresponding to the DE applicants being reviewed. Type 1 faculty, who have joint appointments on both campuses, will be eligible to evaluate admissions to the DEs of both campuses.
- To review student admissions requirements and make appropriate modifications.
- To collaborate in the recruitment of graduate students.

C. Training and Instruction Committee

The Training and Instruction Committee will comprise 4 members serving renewable 3-year terms with balanced representation of faculty from both campuses. The committee shall meet yearly and as needed, with responsibilities as follows:

- To review course requirements for the program and make appropriate additions and deletions to the list of relevant courses.
- To review Designated Emphasis requirements and make appropriate recommendations (as for admissions, the home campus of faculty reviewers will be matched to the campus-specific Designated Emphasis being reviewed). If and when approved by the Graduate Division and all relevant governing bodies, Type 1 faculty (those with 50:50 joint appointments on both campuses) may be eligible to review and make recommendations for the DEs of both campuses.
- To review Qualification Examination and Dissertation requirements and make appropriate modifications.
- To develop recommended areas of specialization.

- To manage resources related to space, computing, and student funding, and identify new needs and opportunities in this regard.
- To actively solicit student feedback

D. Diversity Committee

The Diversity Committee comprising 4 members serving renewable 2-year terms will include balanced representation of faculty from both campuses. The Committee will include the Student Diversity Fellow, selected through an annual application process administered by the Committee. The Directors shall appoint a core CPH AGG member to be the Graduate Group Equity Advisor, to be (re-)appointed annually, who shall Chair the Diversity Committee and oversee the activities listed, with support by the Student Diversity Fellow. The committee shall meet yearly and as needed, with responsibilities as follows:

- To review integration of training on health equity, systemic racism, ethics, and health disparities in the curriculum
- To solicit feedback from matriculated students and from faculty, in particular those identifying with groups and communities underrepresented in the STEM fields included in Computational Precision Health, using both online anonymous surveys and focus groups.
- To conduct Town Hall meetings, at which the results of both surveys and focus groups will be presented and discussed and feedback on means to improvement will be actively solicited.
- To review recruitment practices, admissions outcomes, and climate survey and focus group feedback, and present a formal evaluation with concrete recommended next steps to the faculty and student body. Formal benchmarks will include absolute numbers and proportions of student applicants, accepted students, and matriculated students, who identify as members of marginalized or under-represented groups .
- To administer the application process and appoint a Student Diversity Fellow, annually, for a term of 1 year, renewable annually for a maximum of 3 years of total service, the Student Diversity Fellow will work closely with the Diversity Committee to support implementation of the charges of the committee, as listed above.

E. Campus-Specific DE Graduate Advising Committees

Ultimately the goal of the CPH AGG is to make possible a joint UC Berkeley-UCSF Designated Emphasis in Computational Precision Health that will matriculate students enrolled in PhD programs at both campuses and allow for cross-campus courses to be credited towards the DE. However, given that the administrative structures for this do not exist at the current time, two distinct DE Graduate Advising Committees will be designated, one for each campus, comprised of faculty with the same corresponding home campus. Type 1 faculty will be eligible to serve on the DE Graduate Advising Committee of both campuses.

 The committee shall meet as needed, with responsibilities as follows, which may be delegated as the committee chooses:

- To assign initial DE Advisors for the Designated Emphasis
- To review and approve CPH representation on Qualifying Exam committees of DE students
- To review and approve CPH representation on Dissertation committee of DE students

- To actively solicit student feedback on the DE program
- To communicate regularly (minimum annually) with the Graduate Advising Committees (or corresponding appropriate advising bodies) of PhD programs with students actively enrolled in the campus-specific Designated Emphases.

F. Nominating Committee
The Nominating Committee, comprising at least 2 members serving renewable 2-year terms, will include balanced representation of faculty from both campuses. The committee shall meet as needed, with responsibilities to propose a slate of candidates for open positions on the Executive Committee in the annual election. To this end, the Nominating Committee will solicit nominations from core AGG members. However, if there are insufficient direct nominations for a full slate of candidates, the Nominating Committee can then propose additional candidates.

G. Additional *Ad Hoc* Committees
In addition to these three standing committees, *ad hoc* committees may be appointed, as needed, by the Executive Committee, e.g., committee for the development of a long-term strategic plan. *Ad hoc* committees will also be appointed to handle personnel matters (Article 4).

ARTICLE VI: Student Representatives
Student representatives are self-nominated or nominated by peer students, typically in response to a Committee Service Announcement sent out by email. The nominees submit a short description of their interest in the position and particular qualifications, if applicable. The Program Director(s) or Committee Chair(s) will select student representative(s) from the list of nominees. The term of service and voting rights of the student representative will be determined by the Chair of the committee.

ARTICLE VII: Curriculum and Program Standards

Student advising and mentoring
The PhD student advising model is based on assignment of an initial Academic Advisor at time of matriculation, with transition to a Research Advisor (or co-Advisors) at some point during the first year of study). The Research Advisor (or co-Advisors) will serve as the student's Dissertation Chair (or co-Chairs). Students will not be expected to have identified an Academic or Research Advisor at time of application, but will be expected to have identified one or more Core CPH Augmented Graduate Group faculty members as potential DE Advisors.

The DE student advising model is based on the assignment of a CPH DE Advisor at time of acceptance to the DE program. Two campus-specific DEs are proposed, and will be administered in parallel. Assignment of DE advisors will be made by the CPH Program Directors based on the following considerations: the DE advisor must be a member of the Academic Senate of a student's home campus; the current advising load of the faculty; and the interests and academic background of the student.

Designated Emphasis Curriculum

The DE curriculum will consist of Foundational courses in Computational Precision Health drawn from existing foundational coursework of the CPH PhD program. Students in the UC Berkeley DE will take courses for the DE from among approved UC Berkeley courses. Students in the UCSF DE will take courses for the DE from among approved UCSF courses. Details of the curriculum will be determined by the Training and Instruction Committee described in Article 5. Students must be admitted to the DE and must meet all curricular requirements of the DE program before they take their Qualifying Examination. Any changes in curriculum requirements must be reported to the Graduate Division for review and approval.

PhD Qualifying Examination

Students will be evaluated for depth of knowledge in their research area, breadth of knowledge in fundamentals of computational precision health, ability to formulate a research plan, and critical thinking. Specifically, the examination will cover three areas: (1) fundamentals of computational science; (2) fundamentals of health science; and (3) the student's chosen "third" area of research specialization. The Qualifying Examination Committee will consist of four members of the Berkeley or UCSF Academic Senates: three CPH AGG core faculty members, and an Academic Senate Representative/outside member, who may be a CPH AGG affiliate, but must be a Senate member from the same home campus as the student. At least one faculty member from each campus must be included. The Chair must be a core member of the CPH AGG and have the same home campus as the student, but may not be the student's Research Advisor(s) or Dissertation (co-)Chairs. Selection of Qualifying Examination Committee members is the responsibility of the student, in consultation with their Research Advisor(s), and must be approved by the Head Graduate Advisor and the home campus Graduate Division.

PhD Dissertation

A PhD student's Dissertation Committee will consist of at least three members of the Berkeley or UCSF Academic Senates, and at least one member from each. The student's Research Advisor (or co-Advisors), will serve as the chair (or co-Chairs). UCSF and UC Berkeley currently have distinct practices with regards to the role of the Research Advisor as the Dissertation Chair, both with the intentions of ensuring optimal protection of student welfare, but reflecting the differing PhD mentoring and faculty promotion models on the two campuses. Given that the Type 1 faculty, who are anticipated to provide the bulk of PhD advising in the CPH program, will have expectations for promotion closely tied to PhD dissertations chaired, we have elected to follow the model of the Chair (or co-Chairs) and Research Advisor (or co-Advisors) being one and the same.

The (co-)Chair and Academic Senate Representative must both be members of the Academic Senate and from the same home campus as the student. It is envisioned that Type 1 core faculty (those who hold 50:50 joint appointments at both campuses) will be eligible to serve as Dissertation Chairs for students with either UC Berkeley or UCSF designated as their home campus, pending official approval of all appropriate governance bodies and specification in appropriate MOUs. However, until such time as this mechanism is formally approved, students will have an opportunity to change their initial designation of home campus prior to their qualifying exam to ensure that their home campus matches

that of their Type 1 Research Advisor. For students with Type 2 faculty serving as Research (co-)Advisor(s), they will be expected to transition their home campus to the home campus of their Advisor if needed before they advance to candidacy. At least two members of the Committee must be core members of the Augmented Graduate Group in Computational Precision Health; the third member must be outside the core CPH graduate faculty, and may be an affiliated member of the CPH AGG or a faculty member outside the CPH AGG. The Dissertation Committee will be developed by the student in consultation with his/her/their Research Advisor or co-advisors. All dissertation projects must be scholarly, independent and original research that implements knowledge, techniques, and methods from the computational and health sciences to contribute new knowledge to the field. Students will commence work on their dissertation by the fourth semester, after advancing to candidacy. The student must meet with his/her/their Dissertation Committee at least once each year while in candidacy.

Degree Conferral
The PhD diploma will be conferred with the designation "Doctor of Philosophy in Computational Precision Health.

The Designated Emphasis will be acknowledged solely in conjunction with the PhD in an established PhD program and will be signified by the transcript and diploma designation "PhD in *Name of Student Major* with a Designated Emphasis in Computational Precision Health."

Home Campus Designation
UC Berkeley and UCSF will each serve as a potential home campus. Matriculating students will be assigned an initial home campus by the Admissions Committee, based on the student's preference and in consultation with CPH program staff. A brief supplemental application will be filed at the other campus, as needed. Directors of the Computational Precision Health program, supported by the CPH Graduate Student Affairs Officer(s) (GSAO(s)), will work closely with both Registrars to ensure efficient processes. As soon as a student has selected a Research Advisor, the GSAO will work with the student to change home campuses if needed to match the home campus of the Research Advisor/Dissertation Chair.

Program Evaluation
The CPH program will be reviewed per each campus's departmental or graduate program review procedure. At UC Berkeley the Program Review Oversight Committee (PROC) has authority over this process. At UCSF, at the request of the Graduate Council, the Graduate Division will recruit a faculty committee to engage in a thorough review of the program and provide a final report including opportunities, challenges, and recommendations.

Degree program standards
Degree program standards shall be determined by the Training and Instruction Committee (Article 5). Any changes in curriculum requirements must be reported to the Graduate Division for review and approval.

ARTICLE VIII: Meetings of the Augmented Graduate Group Membership

At least 4 meeting(s) of the general membership of the Augmented Graduate Group shall be held each year. The (co-)Chair(s) of the Augmented Graduate Group shall call a special meeting whenever requested by written notice from 5 or more members. Meetings shall be conducted in accordance with generally accepted procedures. At meetings, 6 current core members of the Augmented Graduate Group shall constitute a quorum and shall be empowered to take action on matters before the meeting, except for changes in these Bylaws. Minutes of each meeting shall be the responsibility of the co-Chairs, facilitated by the program Executive Director, and shall be distributed to the membership following the meeting.

ARTICLE IX: Quorum

At AGG meetings, 6 current core members of the Augmented Graduate Group shall constitute a quorum. Issues that require a vote (except for changes to the bylaws) require a simple majority of the casted votes. On amendments and revision of bylaws passage requires a supporting vote by at least two thirds of the members voting.

If balloting is conducted via e-mail or web-based technology, opportunity must be provided for expression of opinions about the proposal prior to the acceptance of votes; the program must allow 7 days for votes to be returned or before closing polls. In personnel votes, members should be notified in advance of an upcoming vote, and efforts should be taken to allow additional time for members to lodge their votes.

ARTICLE X: Requirements for PhD Programs to be DE Affiliates

Existing PhD programs of the UC Berkeley and UCSF may elect to affiliate with the corresponding campus-specific Designated Emphases in Computational Precision Health by submitting a letter of intent to the co-Chairs of the Augmented Graduate Group, signed by the chair of the respective PhD program. Affiliated PhD programs must demonstrate commitment to training and research in the area of the DE, including the following commitments:

1. Affiliated PhD programs shall give the DE prominence at least comparable to that of a single faculty member in the program in brochures and website advertisements.
2. Affiliated PhD programs agree to either distribute DE materials (e.g., program brochure) with all corresponding affiliated PhD program materials, or provide such materials upon request.
3. Applications of students indicating interest in the DE shall be marked for review by members of the DE Graduate Group in the respective PhD Program.
4. Applicants indicating interest in the DE who are invited by the affiliated PhD program to visit the campus (e.g., for interviews) will be encouraged to meet with members of the DE, including those outside of the affiliated PhD program.

The Chairs of the affiliated PhD programs agree to meet at least annually with the co-Chairs of the Augmented Graduate Group to discuss administrative, instructional, and research resource needs.

ARTICLE XI: Amendments

Approval of changes in these bylaws shall require a two-thirds majority of the votes cast. Proposed changes shall be submitted to the membership of the Augmented Graduate Group by electronic mail ballot or for vote at a meeting, provided that written notice of the proposed changes is submitted to the members at least one week prior to the date of the meeting. All amendments and revisions must be submitted to the Graduate Council(s) for review and approval; changes in the bylaws will become effective upon approval by the Graduate Council.

[Date of adoption- September 19, 2022]