Potentially High-Risk Experiential Learning: Policy on Student Genetic Testing

1) Purpose
   a) As faculty recognize new opportunities for experiential learning within and beyond the traditional classroom setting, protection of students must remain the priority. Classroom-based Student Genetic Testing represents such an opportunity; it potentially provides valuable experiential learning for students as well as potential risks. This policy exists to ensure students’ interests are protected in situations where genetic testing is used in the classroom for pedagogical purposes.

2) Definitions
   a) Student Genetic Testing: Nucleic acid testing of a student’s sample in order to detect heritable traits, genotypes, mutations, or phenotypes of clinical relevance in the course of an experiential learning opportunity. This does not including testing for clinical purposes or testing done in the provision of healthcare services. In Student Genetic Testing, some or all test results are reported back to the individual student.
   b) High Risk Testing: any Student Genetic Testing that involves more than a minimal risk to the wellbeing of the student or that has a reasonable possibility of impacting student health-related behavior. Examples of High Risk Testing include, but are not limited to, specific disease or disease-risk testing or whole genome sequencing. [Note: While any test listed in Appendix A is not considered High Risk, there may be additional tests not currently listed that also do not fall under the category of High Risk Testing.]

3) Policy
   a) Educational Merit
      i) All Student Genetic Testing must have an educational purpose relevant to the class in which the testing is offered.
   b) Scientific Process
      i) All Student Genetic Testing must be performed in a CLIA certified lab, as required by CLIA and California Department of Health and Human Services.
      ii) The testing and analysis must be performed by the lab staff/administrator only and in any event may not be conducted by any faculty or other personnel with student oversight or grading responsibilities in the course.
      iii) Lab staff/administrators must be blinded to the actual name of the student participants, e.g. via sample barcoding at the point of testing.
      iv) No results or record of Student Genetic Testing may be included in a student’s academic or medical record. This includes biological data obtained via testing, medical or clinical interpretation of those data, and record of whether a student participated in Student Genetic Testing as an experiential learning activity (see also C.1. below).
      v) The student’s genetic material sample used for the testing must be destroyed after the testing is complete.
   c) Student Engagement and Privacy
      i) Student Genetic Testing must always be voluntary and optional. If student participation in the experience of human genetic analysis is a mandatory part of a course, students must be given the option of fulfilling this requirement without personally submitting a specimen for Student Genetic Testing. Alternatives may include using data or samples from an anonymous donor.
      ii) Faculty of record in a course offering Student Genetic Testing must develop an informed consent process, and students must provide written informed consent before participating in Student
Genetic Testing. The informed consent process must inform students that a decision to forego Student Genetic Testing will be kept confidential from both other students and course instructor(s). A template available with this policy.

iii) Students must be given instruction on the ethical, legal, and social implications of undergoing genetic testing before being presented with the decision to participate.

iv) Student consent and participation must be confidential. For example, all students must be given the opportunity for sample collection, but only those who provided informed consent will have their samples tested. The testing and reporting process must blind course instructors with grading responsibility to both the student’s decision to participate in the testing as well as the results of individual student tests.

v) Results must be reported to students in such a way to preserve the confidentiality of results for the student, such as barcoding as mentioned in B.3. above, or confidential individual reporting. Results presented by the instructor must be free of any personal identifying information and should only be reported if a sufficient number of students participate so as to protect the privacy of those who participate.

vi) Student genetic testing must not present an unreasonable financial burden for students. If human genetic analysis is a mandatory part of a course, Student Genetic Testing must be offered at no cost.

d) Unreviewed Tests

i) Any testing not included in Appendix A is considered unreviewed for the purpose of this policy. Any unapproved test proposed for Student Genetic Testing must receive additional oversight and approval from an ad hoc committee appointed by Student Academic Affairs.

ii) The ad hoc committee will decide whether the test should be added to Appendix A, or be considered High Risk Testing. If the ad hoc committee determines a test is High Risk Testing, then the following requirements will apply:

1) Genetic counseling and psychological support must be provided to students who undergo High Risk Testing.

2) Students must be provided with additional information and detail on the High Risk testing in the informed consent process, such as the relative certainty of disease risk, clinical validity, and utility associated with the tests.

4) Responsibilities

a) Vice Chancellor, Student Academic Affairs (SAA)

The Vice Chancellor, Student Academic Affairs is responsible for:

i) Appointing members to a committee on Student Genetic Testing in order to generate a list of tests not classified as High Risk Testing. The committee will consist of at least the following: a representative from Student Academic Affairs, an instructor/faculty member who is part of the UCSF Academic Senate, and a medical/genetic ethicist.

ii) When receiving notice that an instructor intends to include any unapproved testing in their course, SAA is responsible for forming an ad hoc committee to review the course offering to ensure compliance with this policy’s additional required safeguards. The ad hoc committee will be formed in consultation with the Office of Ethics and Compliance and Risk Management and Insurance Services.

(1) The ad hoc committee will report their determination to the responsible school’s curriculum committee.

iii) Update and maintenance of this policy, and periodic review of the tests listed in Appendix A.
iv) Dissemination of this policy to the various schools and their curriculum committees.

b) Instructors
   i) Instructors of record who include student genetic testing as part of their courses must provide the relevant Dean(s) and the Senate Committee on Courses of Instruction with sufficient detail about proposed classroom procedures to enable enforcement of this policy.
   ii) Instructors who propose any unapproved testing must inform Student Academic Affairs in order to receive review of the course offering.

c) Committees on Curriculum
   i) The committees on curriculum for the various schools are responsible for ensuring that instructors notify the school whenever student genetic testing is planned.
   ii) The committees on curriculum are responsible for notifying the Academic Senate Committee on Courses of Instruction that classes including student genetic testing meet the requirements put forth in this policy.

d) UCSF Academic Senate – Committee on Courses of Instruction
   i) The Committee on Courses of Instruction must confirm that any course including Student Genetic Testing complies with this policy before being listed in the UCSF Course Catalog.

5) Appendices
   A. Approved Tests
   B. Consent Template
   C. Policy Guidance
   D. Process and Justification
Appendix A: Committee Approved Tests for Student Genetic Testing

The following tests have been approved by committee for use in courses involving student genetic testing, as per Potentially High-Risk Experiential Learning: Policy on Student Genetic Testing (the Policy). Performing any of the following tests in the classroom setting is permitted if the requirements of the Policy have been met. Any tests not included in the following list must receive additional committee review and oversight as outlined in the Policy.
UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
Consent to participate in student genetic testing, an experiential activity

Course name/number and quarter/year:

Purpose and Overview:
As part of this course, students have the opportunity to experience [pharmacogenomics/nucleic acid/genetic] testing for the targets listed below. De-identified or aggregated results from this testing will be shared in the classroom. In addition, you will be given your individual results. Your participation is entirely voluntary. Your participation will not affect your grade in this course. Instructors with grading responsibility will not know which students took part in this experiential activity.

Procedures:
• This activity complies with the UCSF Student Genetic Testing Policy.
• If you agree, we will collect buccal cells from your cheek with a swab.
• Your DNA will be extracted from this fluid using standard techniques and genotyped for [CYP 2C19, CYP 2D6, UGT1A1, HLAB*5701, or IL28b.]
• You will not be charged.
• A final report of your testing results will be given to you for your use should you want one.
• Your sample will be destroyed after testing is complete and data will be de-linked.

Confidentiality:
• Your sample will be bar-coded to maintain confidentiality.
• Faculty with grading responsibilities in this course will not have access to your test results.

Voluntariness:

PARTICIPATION IN THIS ACTIVITY IS VOLUNTARY. You have the right to decline to participate, or to withdraw from it at any point confidentially and without penalty.

Contact [XXX] at [email, phone] if you have any questions or wish to withdraw after consenting.

If you wish to participate in this activity, you should sign below. You will be given a copy of this consent form.

Date_____________ Student's Signature for Consent
Appendix C: Guidance: Student Genetic Testing Policy

I. Overview
This document is intended to give background and instruction on Potentially High-Risk Experiential Learning: Policy on Student Genetic Testing (the Policy). The policy is divided into three core elements, with an additional element for Unreviewed Testing. This document will give explanation and advice for instructors and individuals evaluating curriculum including Student Genetic Testing components to ensure it meets the standards set by the Policy.

II. Policy Section A. Educational Merit
Any Student Genetic Testing must be justified by specific pedagogical goals set by the instructor. It is the responsibility of the instructor to establish a legitimate educational purpose. Merely testing to show students a new technology, for example, is not a sufficient educational purpose for Student Genetic Testing.

The focus of the policy, as indicated by the title, is experiential learning. The students will learn something relevant to their discipline by going through the experience of, in this case, Student Genetic Testing. While not exhaustive, some examples of valid experiential learning objectives might be giving students the opportunity to experience what their future patients/research subjects may experience, or to give them an opportunity to interpret actual results with others as they may have to in practice.

It is also important that the test being performed be relevant to the student’s specific educational discipline. For example, it is unlikely that it would be appropriate to perform testing for Alzheimer’s risk on Pharmacy students, as it has no direct relation to the practice of pharmacy. Alternatively, testing for metabolism of a pharmaceutical product to combat Alzheimer’s would be appropriate for Pharmacy students.

In establishing the educational purpose of Student Genetic Testing, instructors must articulate, at least: a) the educational merit of the experience and how it relates to the course, and b) how the test itself relates to the course and discipline/school of the students.

III. Policy Section B. Scientific Process
Maintaining a rigorous scientific process in the performance of any Student Genetic Testing is critical, in order to advance the best interests of students.

The first requirement is that all testing be performed in a CLIA certified lab. It should be noted that this does not mean the test must be CLIA approved. However, the lab itself must be CLIA certified. This is required by the California Department of Public Health.

In order to preserve the privacy of the student, as well as to avoid the appearance of bias in the classroom, the testing and analysis must be performed only by the lab staff and in no event by a faculty member or other individual with student oversight or grading responsibilities. To strengthen these protections, lab staff and administrators must be blinded to the actual names of the students when performing the testing and analysis. While there are likely multiple ways to accomplish this, one option is to use sample barcoding.
Finally, the results and record of the student testing may not be included in the student’s academic or medical record. Additionally, the sample must be destroyed after the testing is completed. While preserving data and/or a sample is important in the health or research contexts, in the educational context it serves no purpose.

IV. Policy Section C. Student Engagement and Privacy

The student engagement section has the following aims: to minimize coercion, to preserve privacy, to ensure students’ decision making is informed, and to ensure participation is possible for any student who wishes to participate.

The first point is that Student Genetic Testing participation must be voluntary and optional. This means that personally providing a sample must be an opt-in activity. This also means that participation in Student Genetic Testing may not have any impact on grading in the course. If human genetic analysis is a mandatory part of the course, students must be given a way to participate without undergoing student genetic testing themselves. For example, students may be given anonymized data from an anonymous sample from an individual not involved with the class. Alternatively, they may be given the instructor’s genetic information to use in analysis.

While informed consent is required in both the research and medical contexts, this policy also mandates that informed consent be included in any courses involving student genetic testing. Informed consent involves more than just a form – it is a process that involves explaining the risks and potential benefits to students before they decide whether to participate. The Policy requires that this discussion be had, as well as that a written informed consent form be signed by the student. The informed consent form should include:

- A purpose/overview section, which contains why the testing is being conducted, and how the data will be shared (e.g. de-identified, aggregated);
- A list of the procedures (e.g. sample collection and what will be tested for);
- A confidentiality statement; and
- A voluntariness statement.

Accompanying this guidance is also an informed consent template (Appendix B), designed to satisfy all of these requirements. Instructors should use this template, making only those changes necessary for their particular course (e.g. what will be tested, who to contact, etc.).

To help ensure students have the proper education to make an informed decision, students must be given some instruction within the course on the ethical, legal, and social implications of undergoing genetic testing. This instruction must be given prior to the students being presented with the opportunity to consent/participate, and is intended to help ensure students have all of the knowledge necessary to make a properly informed decision.

In order to protect student privacy it is critical that student participation and consent remain confidential. This means both sample collection and collection of signed informed consent forms must be confidential. One option may be to collect samples in private. The important aspect here is that the collection process and the consenting process do not reveal who is and who is not participating, either to the other students, or to the instructors.
Reporting results back to students presents several risks regarding privacy, coercion, and distress. As such, it is necessary that results be reported with care and in such a way to preserve student confidentiality. Some ways to accomplish this may be for students to have the individual results reported directly to them from the lab, or to have the results reported via barcode. For results presented to the class, in order to preserve confidentiality results may only be reported either completely de-identified, aggregated, or both. Note that in some situations, de-identification may not be possible. For example, when a genetic condition is primarily present in individuals of a particular ethnicity, and there are few individuals of that ethnicity in the class, it may not be appropriate to report results on that condition, even if the results are de-identified.

Finally, participation in student genetic testing may not present an unreasonable financial burden to students. Voluntary participation should go both ways, and that is students should be free to opt out, but if they wish to participate they must also be given the opportunity to do so, so long as there aren’t other restrictions (e.g. only a limited number of samples can be taken, or a lab may not be able to test every student who wishes to participate). It is the instructor’s responsibility to ensure that the financial arrangements and agreements are made prior to the course taking place.

V. Policy Section D. Unreviewed Testing

Appendix A to the Policy includes a list of tests that have been examined and approved by committee for use in Student Genetic Testing. Any test not on this list is considered unreviewed. Proposing such a test will initiate an ad hoc review process, in which an ad hoc committee will be convened to determine whether the proposed test is relatively low risk, and should be included in Appendix A, or that the proposed test constitutes High Risk Testing, which will trigger additional requirements as set forth in the Policy. Tests will be designated High Risk based on multiple factors, such as the potential to alter student behavior, what the behavior alteration may include, and the additional potential privacy risks for data.

High Risk Testing will involve two additional protections. First, genetic counselling and psychological support must be provided to the students undergoing the testing. This means that the support must be provided at no cost to the students, and it is up to the instructor to arrange for the support to be provided, either via third party or other campus based resources. It is the instructor’s responsibility to ensure that the financial and other agreements are in place before any Student Genetic Testing occurs in the course.

Second, additional information is required in the informed consent process and the instruction on the ethical, legal, and social implications of genetic testing. Subjects that must be added are the relative certainty of disease risk, the clinical validity, and the utility associated with the tests. This is not an exhaustive list, and while these considerations may represent the bare minimum for High Risk Testing.
Appendix D: Process and Justification

I. Introduction

This document is intended to document and explain the reasoning behind the drafting and implementation of the Potentially High-Risk Experiential Learning: Policy on Student Genetic Testing (“the policy”). This document will first explain the process and background before the policy was drafted, which is followed by a detailed explanation of the reasoning behind each point and limitation in the policy.

II. Process

The policy was drafted with a two-stage approach. First we looked into institutional examples along with publications related to the subject of student genetic testing, and second engaging stakeholders at UCSF.

Primarily, we looked at the programs at Stanford, Tufts, and the publicized failure at UC Berkeley. We first reviewed media reports on student genetic testing at various institutions, and the following publications:


Through the review of the literature and media, we identified several recommended best practices. We then took used these recommendations as a basis for engaging the stakeholders we identified at UCSF. The following groups were engaged on a group by group basis:

- The School of Pharmacy faculty conducting the student genetic testing.
- UCSF Student Associations (Graduate Students Association and the Associated Students of UCSF).
- Representatives of the Deans for Education of the UCSF Schools.
- Academic Senate and the relevant committees (Coordinating Committee, Committee on Courses of Instruction, and Committee on Educational Policy).

After meeting with the various stakeholders, we developed a draft policy, which was then presented to several of the stakeholder groups for comment. The final step in the policy development process was to engage all of the stakeholders in a single large group for comment on the policy.
III. Policy Overview

The following section is intended to give an analysis of the drafted policy, as well as the justification of why each point was added to the draft policy. It is not meant to be an in depth guide to compliance with the policy, but rather to explain why each point was included.

A. Title

While the title is self-explanatory it was also carefully considered. The title essentially has two parts: “Potentially High Risk Experiential Learning” and “Policy on Student Genetic Testing.” The first portion of the title was included as the policy was not unique in concept. Several situations are arising in which students may be put at risk via experiential learning, and we felt this policy could stand beside other potential policies or guidelines for those experiences as well. The second portion of the title, Policy on Student Genetic Testing, was included in order to make it easily recognizable in terms of its subject matter and governance. While there were some calls to narrow the title with more technically correct terms, we felt that more individuals would recognize the scope of the policy instantly with the student genetic testing title, rather than more technical terms.

B. Definitions

The definition for Student Genetic Testing was chosen to be broad in scope but limited in the technical application as nucleic acid testing. This was further narrowed to situations where the results are reported on an individual basis. The risks presented with student genetic testing are primarily an issue when the results are reported to the students on an individual basis, and similarly some laws only applied when the results were to be reported individually.

The definition for High Risk Testing was included to add a secondary category with additional protections for students. While there are always some risks in terms of privacy, coercion, and potential instructor/professor bias in terms of participation in Student Genetic Testing, there are additional concerns when the testing has the potential to alter students’ behavior or choices, or cause emotional or psychological distress. For this reason, High Risk Testing is included as a definition, in order to make clear what kind of additional limitations apply to High Risk Testing. Appendix A is (intended to be) a list of genetic tests which are not considered high risk and are pre-approved. However, not all unlisted tests will be high risk, and the core element to risk evaluation is the risk to the student, such as the potential to alter behavior, what kind of behavior may result, and any privacy risks related to healthcare availability.

C. Policy

The policy section sets the standards that all student genetic testing must meet in order to proceed. The policy was divided into four sections, educational merit, scientific process, student engagement, and unapproved testing.

1. Educational Merit
The educational purpose is ultimately the core of the policy. While genetic testing in general has required protections in the case of medical care or research, the same protections are not present for testing as an educational activity. At the same time, there has been a move to integrate more of these types of tests to offer experiential learning opportunities for students, in addition to calls to advance precision medicine by engaging learners in these types of activities.

With that said there is also the goal to avoid student genetic testing in the guise of research. In order to satisfy the purpose of the policy, as well as to avoid the problems presented with research on students, the policy has a specific requirement that the testing have an educational purpose.

2. **Scientific Process**

The Scientific Process section is broken up into five sub points, as each point ultimately deals with a different aspect of the scientific process, and avoiding bias in the classroom via protections in the scientific process.

a. All Student Genetic Testing must be performed in a CLIA certified lab. This standard was included for two reasons. First, it is testing which reports results to students which have the potential to guide student decision making now or in the future, and as such, the aims of CLIA (clinical reliability) are appropriate for Student Genetic Testing. Second, this is an extension of the current California Department of Public Health (CDPH) requirement. After the UC Berkeley Bring Your Genes to Cal program was announced in 2010, the CDPH asserted, in a letter to UC Berkeley, that all genetic testing which reports results to the individual must be run through a lab headed by a licensed physician, which is a standard met in CLIA certified labs.

b. The second requirement is that the individual analyzing the results be independent of anyone with student oversight or grading responsibilities. This point was included in recognition that the student decision to participate in the testing should be free of coercion. If a grading instructor has control of the testing, the potential for participation impacting grades or appearing to impact grades is presented, and this point is included to avoid even the appearance of potential bias in grading.

c. The third requirement is to blind the names of participants to the lab staff via a measure like barcoding. This is a standard protection of participants in clinical trials, and the protection of student privacy is critical on multiple levels in this context. For one, while this information is not part of the health record, it is still information which could be considered health information. Additionally, connecting the name to the results also reduces the anonymity in the classroom setting, which goes to the previous point of avoiding the appearance of bias in grading.

d. The fourth point is a prohibition from including the results of the test in the student’s academic record or medical record. While the testing may have the capacity to produce data/information that is clinically relevant, the purpose of testing in the classroom environment is educational, not clinical. Additionally, including the information in the medical record presents a potential entanglement with HIPAA, and including it in the academic record presents a potential entanglement with FERPA, which could add unnecessary administrative requirements to the student testing exercise.
e. The final requirement is destruction of the sample. Again, as this is an educational activity, rather than a research activity or clinical activity, there is no legitimate purpose for saving the sample.

3. Student Engagement and Privacy

Student engagement is the largest section of the policy, with 6 points, all focused on protecting the privacy, reducing coercion, and properly engaging students via informed consent processes.

a. Voluntariness is one of the key points in terms of student engagement. Participation in any student genetic testing must be free of coercion, and therefore must be voluntary, rather than a mandatory part of the class. While a course instructor may include human genetic analysis as a class requirement, there must be a method for students to fulfill this requirement without personally submitting their own sample for genetic testing.

b. The second requirement is an informed consent process. While informed consent is a requirement in both the clinical and research contexts, there is no general requirement for genetic testing outside of those contexts. Despite this, we believe engaging in an informed consent process, including documentation, is an important step in ensuring proper student engagement. Students are a particularly vulnerable population, being a captive audience and subject to influence from both instructors and their peers. In order to ensure the student decisions are informed, they must undergo an informed consent process before deciding to participate in Student Genetic Testing.

c. Confidentiality of participation is another aspect of student engagement that is related to the privacy protections in the scientific process. Confidentiality requirements are also related to coercion, in that strict confidentiality can shield the student from coercion not only from the instructor, but also their peers if they wish to not participate. Because peer pressure can exert significant influence on student decision making, confidentiality of participation is included to act as a counterbalance to any peer pressure to participate.

d. The fourth requirement is instruction on the ethical, legal, and social implications of genetic testing and the decision to participate. This is an extension of the purpose of including informed consent but also reinforces the overarching goal of having an educational purpose of the testing. Notably, this requirement was requested by the student representatives who were engaged in the process.

e. The fifth requirement is the method of reporting results to students. Again, this is included as a protection for the students’ privacy as well as a bulwark against coercion. Reporting results in a way that does not preserve the confidentiality of the student would make moot all of the other protections for privacy and confidentiality, and thus reporting confidentiality was critical. Additionally, this portion of the policy was also included as a general protection of students. The concern was that it could cause additional emotional distress for students if their results were reported in a way that informed others of their results. That potential distress was not worth any value gained by reporting in such a way, and should be avoided.
f. The final requirement is related to the financial burden posed by testing. Participation should truly be voluntary. Up until this point, the policy was focused on preserving a student’s ability to decline participation. However, any student who wants to participate should also be able to. Thus, this section is left with a general soft requirement of the testing not presenting an unreasonable financial burden for students. Additionally, if genetic analysis is a mandatory part of the course the testing must be offered at no cost. While it was a consideration that offering genetic testing at no cost could itself be coercive, we felt with the limitations of this policy and the responses from the stakeholders we were justified in a limited requirement for no cost testing in a situation where analysis was required in the course. This was included to ensure that when Student Genetic Testing is a key part of a courses curriculum, that student ability to participate would not be limited by their financial situation.

4. **Unapproved Testing**

The last section is related to tests which are not included in the Appendix A, the document which lists pre-approved tests. This section includes an initial basic framework for approval when an instructor wants to perform student genetic testing which is not pre-approved. The first point is that not all tests which are not listed in Appendix A are high risk. It is possible that many tests not listed in the appendix will not be particularly high risk, but it is important both for the development of Appendix A and for the protection of the students that all tests undergo some review before being added, which will be done a committee or an ad hoc committee appointed by Student Academic Affairs. This was critical to include because flexibility of the approved testing and decision making process was an important aspect of the policy as well as a point raised by multiple stakeholders.

This section also provides the additional two requirements for High Risk Testing:

a. The first requirement is that genetic counseling and psychological support must be provided to students undergoing any testing which is considered High Risk Testing. Genetic counselling is often recommended for any genetic testing which has disease risk implications, and other institutions which have potentially high risk testing also offer it to their students at no cost to the student. Additionally, psychological support is added because of the potential for psychological distress when learning of inherent genetic disease risks as well. It is ultimately up to the instructor to arrange for both of these services to be provided.

b. The second requirement is an enhanced informed consent process, which must include additional information on the relative certainty of the disease risk, clinical validity of the results, and utility associated with the test. With a higher risk test being offered, it is only appropriate to ensure that the informed consent process accurately reflects the fact that the test is higher risk.

**D. Responsibilities**

The responsibilities section is the final substantive section of the policy. It was also the final section to be completed, as it required the most cooperation and collaboration between different groups across the
university. Ultimately, the policy puts responsibility on four major groups: Student Academic Affairs, Instructors, Committees on Curriculum, and the UCSF Academic Senate Committee on Courses of Instruction.

1. Vice Chancellor, Student Academic Affairs

Because the policy is primarily focused on protection of students, the Vice Chancellor of Student Academic Affairs is the most appropriate owner for the policy. Student Academic Affairs has four primary responsibilities: appointing a committee to review tests for classification, appointing members to an ad hoc committee for review when unapproved testing is proposed, update and maintenance of the policy, and dissemination of the policies to the individual schools.

2. Instructors

The responsibilities of instructors are essentially to comply with the policy, and inform their school’s dean(s) and curriculum committees when they intend to perform student genetic testing, as well as student academic affairs if they wish to do any testing which is not pre-approved.

3. Committees on Curriculum

Committees on curriculum are essentially responsible for ensuring that instructors in their school know of this policy, and know that they must notify the school/committee if they intend to perform student genetic testing. Additionally, the individual schools curriculum committees must notify the UCSF Academic Senate Committee on Courses of Instruction that a course including genetic testing is proposed and that it meets the standards and approvals necessary under this policy.

4. UCSF Academic Senate – Committee on Courses of Instruction

The UCSF Academic Senate – Committee on Courses of Instruction is essentially the final oversight mechanism, and their job is simply to ensure that they have received from the school a confirmation that courses including student genetic testing meet the requirements in this policy before listing the course in the catalog for registration.