Charter for Development of a New Professional Pharmacist Curriculum for the University of California San Francisco School of Pharmacy

Approved by:
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Educational Policy Committee of the UCSF School of Pharmacy

Purpose
The UCSF School of Pharmacy is embarking on a development of a new curriculum to meet society's need for professionals who are expert in the management of human disease. This document summarizes the process by which this curriculum development will begin and proceed. The document was developed by the Educational Leadership Team of the UCSF School of Pharmacy and approved by the Dean on behalf of the school's administration and the Educational Policy Committee on behalf of the faculty.

Executive Summary
- Initial curriculum development will be guided by a core design group (DRIVE) coordinating with three Design Working Groups.
- The Design Working Groups will cover different curricular domains:
    - Core Science and Practice of Therapeutics ("Core")
    - Frontiers of Science and Practice of Therapeutics ("Frontiers")
    - Experiential Science and Practice ("Experiential")
- Authority and reporting procedures to the administration and faculty have been established
- All stakeholders will be provided opportunities to participate in the process, based on their interest, expertise, and availability
- A multi-layered communications strategy is proposed that provides regular summary updates to stakeholders as well as avenues for access to deeper levels of information for interested parties (see Appendix , Communications Strategy)
- A budget for personnel and expenditures is proposed covering anticipated resource requirements (see Appendix , Resource Allocation Plan)
- This charter is designed as a "living document" that will be updated to reflect changes in the process as it progresses.

Background

The University of California San Francisco (UCSF) School of Pharmacy (SOP) has long been recognized as a leader in the training of pharmacists, through its Doctor of Pharmacy (PharmD) curriculum and its postgraduate training programs (residencies and fellowships). In 1998, it launched a major transformation of the PharmD curriculum aimed at producing graduates with skills to navigate the challenges and opportunities the faculty saw ahead of them. Sixteen years later, many of those challenges and opportunities remain, while entirely new ones have emerged. Thus, the leadership and faculty of the school believe it is time for the SOP to reassess its pharmacist training programs to ensure that the school's graduates continue to have the skills and knowledge to advance the health of patients worldwide.   Towards this end, Dean Guglielmo has charged a group of faculty to begin the process of developing a new pharmacy professional curriculum (Appendix I), and the Educational Policy Committee has authorized this group to work on behalf of the faculty. This document describes the initial plan for the process by which the development of the new curriculum will proceed.
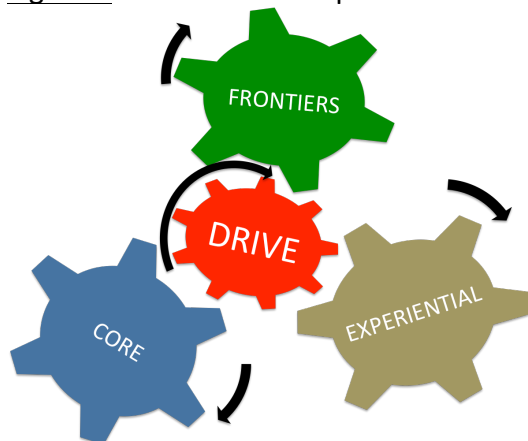

Structure of Curriculum Development Process

At the Curriculum Strategic Visioning retreat held on June 18th, 2014, faculty and stakeholders were asked to provide their thoughts on the desired qualities of the curriculum redesign process (Appendix II). The summary of their input on this was:

> "Curricular redesign should have the institutional commitment, resources, and stakeholder engagement to push forward and 'fail fast'. At the lead should be an agile core design team, dedicated to developing a transparent process and driving it forward. Surrounding this team should be purpose-driven groups selected for defined tasks based on representation and specific competencies. All faculty and stakeholders should have opportunities to participate according to their interest, expertise, and availability. There should be regular concise communication to all participants, with channels to allow deeper exploration and to facilitate feedback. The redesign should utilize evidence and expertise throughout all aspects of the process with documentation of decision-making rationale. Modeling the mindset we wish to impart to our trainees, a culture of evaluation and iteration should drive the process. The 'soft launch' of curricular innovation should begin immediately with integration of selected interventions into the current curriculum. Similarly, faculty development for all faculty (paid and volunteer) towards mastery of teaching and assessment techniques should not wait for the "new" curriculum."

Starting from this vision from faculty and stakeholders, an initial structure for the curriculum design process has been established. Figure 1 displays a representation of the

interrelationships between the "core design team" and the "purpose-driven groups", which are described further in Table 1.

Figure 1: Interrelationships of Core Committees

The core design team (known as "DRIVE") will be responsible for oversight of the process and coordination between the Design Working Groups. The Design Working Groups will focus on different key domains of curriculum development. As curriculum development progresses, it is envisioned that focused working groups focusing on details of specific areas will be required.

Table 1: Roles and Responsibilities of Committees

Committees	Responsibilities
Oversight and Coordination	
DRIVE (**D**esign: **R**esource, **I**ntegration, **V**isioning, & **E**xecution) team	-Move process **forward** and provide overall direction for **design** process -Obtain & allocate **resources** -Provide coordination and **integration** across teams & schools -Ensure alignment with school's **vision** & accreditation requirements -Oversee **execution** & implementation -**Report on progress** to VD and stakeholders -Provide **pedagogical science** to inform classroom and experiential teaching -Develop **educational infrastructure** (including educational technology) -**Design assessment system** for students & assessment tools for faculty
Design Working Groups	
FRONTIERS in Science and Practice of Therapeutics	-Design **"inspiration & inquiry"** curriculum -Design training **depth opportunities** (bridges to dual degree programs, residency, fellowship, etc)
CORE Science and Practice of Therapeutics	-Identify **core non-experiential** curriculum -Lay out **progress of core curriculum** to support experiential science and practice
EXPERIENTIAL Science and Practice	-Design **experiential curriculum for practice** (IPPE, APPE) -Design **experiential curriculum for depth and inquiry** (in coordination with FRONTIERS)

Authority and Accountability

In undertaking a task of this magnitude, explicit authority and clear lines of accountability are important. Figure 2 illustrates these relationships for the planned curriculum development process. Authority for DRIVE to act on behalf of the faculty is provided through the faculty's representatives on Faculty Council and the Educational Policy Committee. On the administrative side the Dean and his leadership team provide authority through the Vice Dean and Educational Leadership Team.   Accountability and reporting are then provided back to these groups as well as directly to students, affiliates, and outside stakeholders.

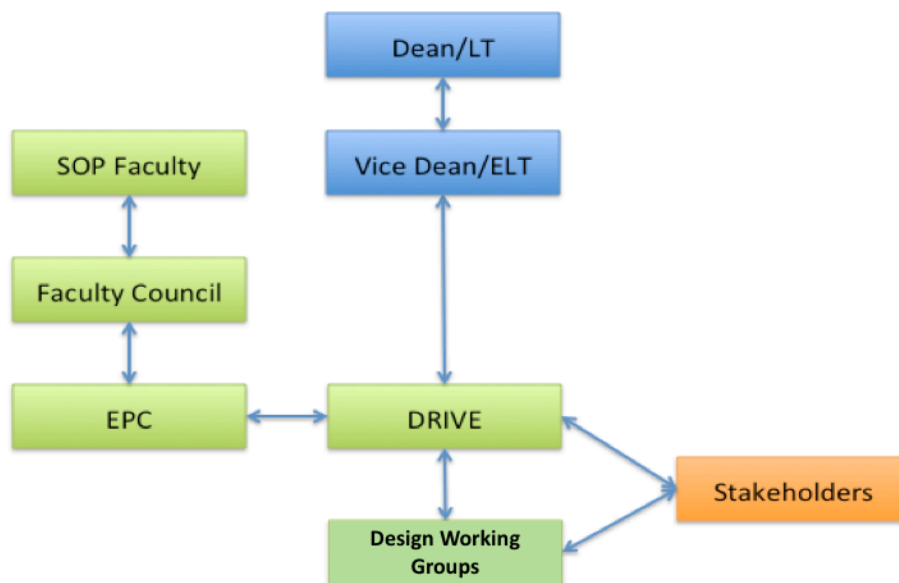Figure 2: Accountability and Authority Infrastructure

Table 2 further describes the interaction between the curriculum teams and key people and groups in terms of authority, accountability, and reporting.

Table 2: Authority, Accountability, and Reporting

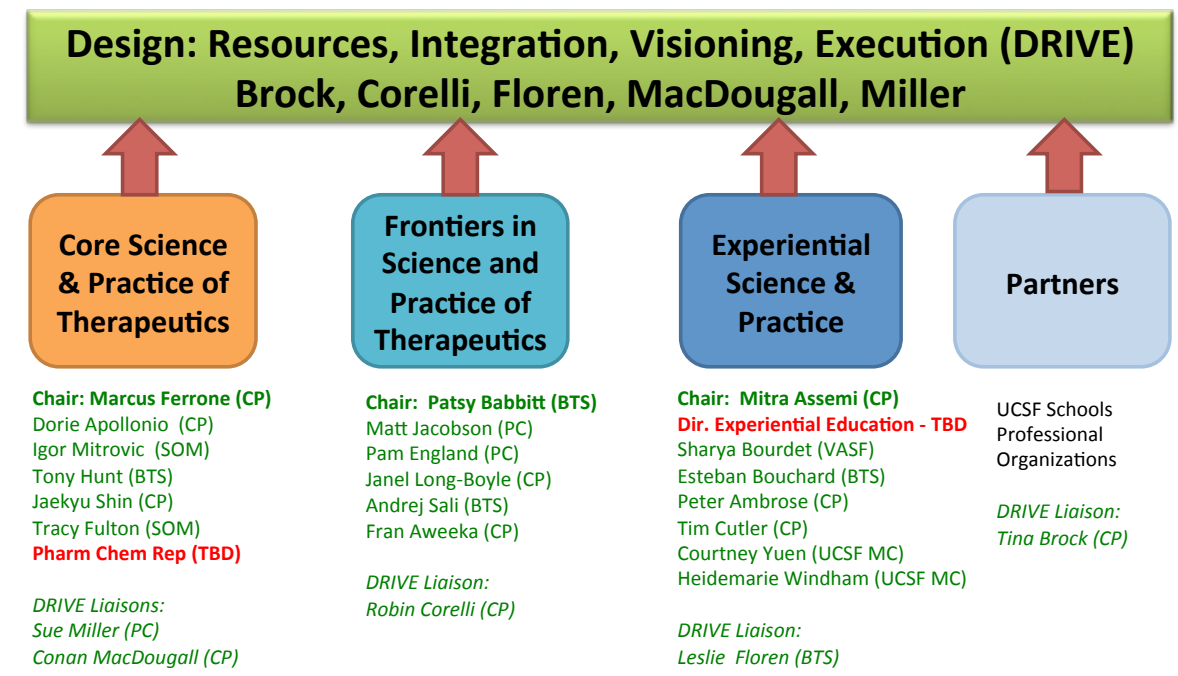| Person or Group	Role
B. Joseph Guglielmo, PharmD, Dean, UCSF SOP	*Provide:* -Leadership and advocacy -Authorization of resource allocation for budget and effort *Receive:* -Updates from Vice Dean on project progress
Dean's Leadership Team (LT)	*Provide:* -Advice and support to Dean on project *Receive:* -Updates from Vice Dean on project progress
Sharon Youmans, PharmD, MPH, Vice Dean, UCSF SOP	*Provide:* -Coordination of curricular revision within overall educational initiatives -Allocation of personnel and budgetary resources -Updates to Dean and Dean's LT *Receive:* -Regular updates on project progress through DRIVE -Accounting of resource use and budget status
Educational Leadership Team (ELT)	*Provide:* -Advice and support to Vice Dean on project *Receive:* -Regular updates on projectprogress through DRIVE
Educational Policy Committee (EPC)	*Provide:* -Authority to embark on curricular design on behalf of the faculty -Guidance on early implementation projects -Updates to Faculty Council on project progress *Receive:* -Regular updates on project progress through DRIVE
Faculty Council	*Provide:* -Time for project updates at full faculty meetings *Receive:* -Regular updates on project progress via EPC
Stakeholders (faculty [paid and volunteer], students, alumni, other health professionals, etc)	*Provide:* -Expert input on project initiatives -Service on committees and working groups *Receive:* -Regular updates on project progress via communication strategies (described below) -Full access to most project documents

Personnel

The most important resource in development of an innovative curriculum will be the time and expertise of the faculty and other stakeholders of the UCSF SOP. The curriculum development process should allow all stakeholders to participate in the process to some degree, based on their expertise and available time commitment. Table 3 describes a variety of roles available to stakeholders in the initial design phase, from the core design team down to "followers" of the Design Working Groups who can asynchronously follow project developments and provide input.

Table 3: Curriculum Development Positions, Expectations & Activities

Position	Expectations & Activities
DRIVE team member	-Meet at least weekly -Each member will be a liaison with one of the Working Groups or outside committees (eg, Bridges in the School of Medicine): assist committee chairs with agenda, planning, resources; update committees on work of other groups; report back to DRIVE team -Extensive reading/research on relevant educational issues -Coordinate documentation & communication tools for Working Groups
Design Working Group chair	-Create group agenda, arrange meetings (generally every other week) -Assign responsibility to members -Reading/research on relevant educational issues -Communicate with DRIVE team & other gear groups
Design Working Group members	-Attend most committee meetings -Provide expertise & represent "constituents" at meeting -Reading/research on relevant educational issues
Design Working Group affiliates	-Attend selected committee meetings -Provide expertise & represent "constituents" at meeting
Design Working Group followers	-Provide feedback & expertise as desired
Project manager	-Attend DRIVE meetings and most Working Group meetings -Provide logistical, planning, and communications support -Coordinate staff efforts

Members of the Design Working Groups have been selected in discussion with the Dean, Vice Dean, Educational Leadership Team, and department chairs (see Figure 3). These members were be selected based on their expertise, availability, and willingness to commit a significant amount of effort to this process. Design Working Groups will be asked to identify other stakeholders who have expertise in important areas related to the committee's work and invite these persons to serve as affiliates to the committee. All stakeholders will be allowed to follow the work of the committees and provide input.

Figure 3: DRIVE and Design Working Groups Membership

Design: Resources, Integration, Visioning, Execution (DRIVE)
Brock, Corelli, Floren, MacDougall, Miller

Core Science & Practice of Therapeutics

Frontiers in Science and Practice of Therapeutics

Experiential Science & Practice

Partners

Chair: Marcus Ferrone (CP)
Dorie Apollonio (CP)
Igor Mitrovic (SOM)
Tony Hunt (BTS)
Jaekyu Shin (CP)
Tracy Fulton (SOM)
Pharm Chem Rep (TBD)

DRIVE Liaisons:
Sue Miller (PC)
Conan MacDougall (CP)

Chair: Patsy Babbitt (BTS)
Matt Jacobson (PC)
Pam England (PC)
Janel Long-Boyle (CP)
Andrej Sali (BTS)
Fran Aweeka (CP)

DRIVE Liaison:
Robin Corelli (CP)

Chair: Mitra Assemi (CP)
Dir. Experiential Education - TBD
Sharya Bourdet (VASF)
Esteban Bouchard (BTS)
Peter Ambrose (CP)
Tim Cutler (CP)
Courtney Yuen (UCSF MC)
Heidemarie Windham (UCSF MC)

DRIVE Liaison:
Leslie Floren (BTS)

UCSF Schools
Professional
Organizations

DRIVE Liaison:
Tina Brock (CP)

Transparency, Communication and Stakeholder Participation

During the curricular redesign retreat, faculty requested a transparent process with regular concise communications and opportunities for deeper engagement (Appendix IV). Towards that end, a multi-layered plan for communication and participation has been designed (Table 4).

Table 4: Communication and Feedback Strategies

Strategy	Content	Access	Input
Public project website (pharm.ucsf.edu/ bridges)	Mission, core documents, contact information	Public access	Comment form on site
Newsletter	Summary updates	Subscribers – opt-out for faculty and students, opt-in for others	Contact info, opt-out
Project document repository in UCSF BOX	All project documents (except for selected draft documents)	All stakeholders with UCSF MyAccess accounts	Document commenting feature
Project	Project progress and	Committee members	Using software

| management software	communications	and affiliates automatically; others as appropriate	features

Resource Allocation, Accounting, and Timelines

Designing a curriculum bold enough to be on the leading edge of healthcare transformation will require an investment of significant effort and resources. Much of the return on this investment will not accrue directly to the school; rather, our patients, our trainees, and our colleagues will be beneficiaries of this new approach. However, we should make every effort to document the monetary and non-monetary returns on this investment.

A working initial budget has been developed and will be continually updated (Appendix V). Primary responsibility for initial budget accounting will fall to DRIVE with reporting to the Vice Dean.

Adherence to timelines will be a key factor in advancing the project forward. A draft high-level timeline for the curriculum implementation is provided in Figure 3. Each committee will also be expected to develop and adhere to working timelines that correspond to ultimate project timelines.

Figure 3: Draft Macro Timeline for New Curriculum
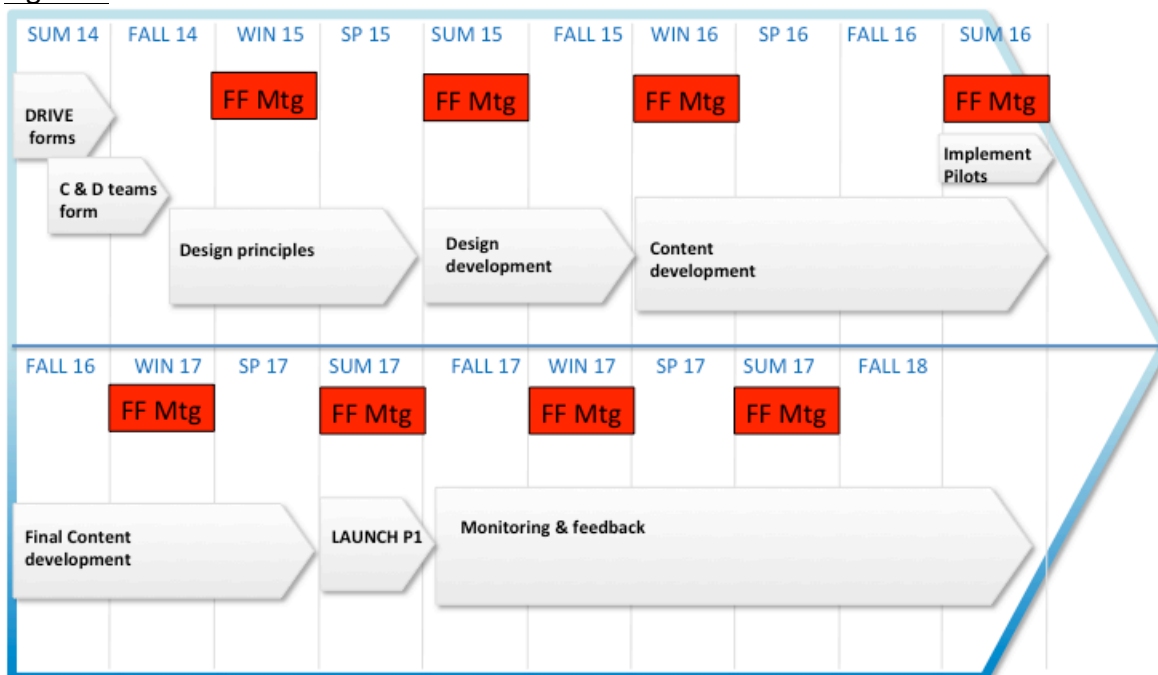
Charter Development and Amendment

This charter is designed as a "living document" that will evolve as the process of curricular design proceeds. This may include changes to personnel, budget, and timelines. Major updates and amendments to the charter require administration and faculty notification and approval. Major appendices may be updated and links in this document will always be to the most updated version.

Appendices
Appendix I: Dean's Charge
Appendix II: Curriculum Redesign Retreat Report
Appendix III: Guiding Principles for Curriculum Development
Appendix IV: Communications Plan
Appendix IV: Resource Allocation Plan