### What is Hybrid-Flexible (HyFlex) Course Design?

[Excerpts from Chapters 1.1, 1.2, 1.3 and 1.4 of Beatty, B. J. (2019). *Hybrid-Flexible Course Design: Implementing Student-Directed Hybrid Classes.* EdTech Books. Available online: <https://edtechbooks.org/hyflex/> ]

**Hy**brid – combines both online and face-to-face teaching and learning activities
+
**Flex**ible – students may choose whether or not to attend face-to-face sessions … with no “learning deficit”

HyFlex courses provide both online and face to face learning environments, and allow students to choose between participation options session by session.

[refer to EDUCAUSE Seven Things you should know About… HyFlex: <https://library.educause.edu/-/media/files/library/2010/11/eli7066-pdf.pdf>]

### Why? Surfacing the Need – 2005 – San Francisco State University Department of Instructional Technologies

The development of the Hybrid-Flexible (HyFlex) course design was driven by several important institutional, faculty and student factors. Institutional factors include the location, instructional history, and enrollment characteristics of the university. Faculty factors include the capacity and capability to teach online and in the classroom and the motivation to try something new to better serve students. Student factors included the academic interests, technical abilities and time and location constraints/restraints of the current student enrollment.

We began this journey after a department meeting in the 2005 academic year where we realized that enrollment concerns had to be addressed, and that our successful residential MA program needed to change to attract more students and to provide more participation options for current students. A suggestion was made that we “move the program online” to increase enrollment by opening up access to the instructional program to students who could not attend class in person. As it became clear that we needed an online option in our MA program, we were faced with the significant challenges of 1) no institutional support to build and grow a fully online program, 2) no proven faculty expertise in teaching fully online courses or serving fully online students, and 3) all current students were regionally located and their interest in a fully online program (which in a small program like ours would mean giving up the classroom program) was unknown but not expected to be high. Trying to implement a fully online program within even a few years seemed like an impossible task, given our conditions.

### What? Solving our Problem: The Genesis of HyFlex

Clearly, a traditional blended learning approach was not going to meet our requirements. We decided that we needed a “bridge” to online; an approach to serving fully online students without abandoning our current classroom students. (Beatty, 2007a) With minimal college support (one course release for one term), I embarked on the HyFlex journey by adding a simple (yet effective) online student path in one of my traditional courses. (Beatty, 2006) Those early graduate students were enthusiastic design partners for a few terms as we tried new approaches, different technologies, and gathered data about participation patterns and student academic performance. (Beatty, 2007b) Within a year, we started to realize that we were doing something much more than building a bridge to a fully online program, we were in fact building a new type of program, one that used hybrid classes (blending online and classroom participation modes) to provide flexible learning paths and allowed students to decide for themselves which path was “best” for them on a daily or weekly basis.

We needed a name for this approach, and settled on a portmanteau of hybrid and flexible: HyFlex.

With the growth of HyFlex at San Francisco State beyond the original ITEC graduate program context, and in synchronicity with an academic senate process establishing high-level policy regarding online education at the university, we developed an official definition of HyFlex courses so that within our institution, we could ensure a consistent understanding of what HyFlex meant to students, faculty, and administrators.

 “**HyFlex** **courses** are class sessions that allow students to choose whether to attend classes face-to-face or online, synchronously or asynchronously.” (SFSU Academic Senate Policy S16-264, available online: [https://senate.sfsu.edu/policy/online-education)](https://senate.sfsu.edu/policy/online-education%29)

### Expanding the “Why?” Potential Opportunities with HyFlex (in normal times)

### Enroll more students (increase access)

### Graduate more students… and faster (increase curriculum schedule efficiency)

### Support working (busy) students (day-day schedule control)

### Support busy faculty (travel-related schedule control)

### Reduce demand on facilities (teach more with same/less space)

### Reduce impact on environment (reduce commuting)

### Leverage the power of hybrid environments (provide more learning opportunity to students; potentially improving learning)

### Develop online teaching (faculty) and learning expertise (students) with built-in “comfort” of face to face environment as a backup

### Allow students freedom to choose how they participate (supporting student-directed learning)

### Build online capacity step-by-step within an institution or program

### Facilitate faculty development (faculty as learners who also need flexibility)

### Use emerging communications technologies to support teaching and learning

### Create new, customized models of instruction to fit emerging needs

### A New “Why?” Opportunities to Support Institutions during a Pandemic (AY 2021)

### *If both face to face (classroom) and online instruction are possible and desired:*

### Physical distancing: Implementing a HyFlex approach can provide an instructional environment that reduces the number of students in a classroom and allows students to choose their mode – no one is forced into an environment they do not want.

### Caveat: If classroom seats are limited, a seat reservation system could be useful – modifying the flexibility aspect of HyFlex to fit the situation.

### Instructional continuity: If a shift to fully online is mandated, course development is already complete. When classroom instruction is allowed again, the designed classroom instructional mode can be readily activated (no additional design needed).

### Quick read: Can HyFlex Options Support Students in the Midst of Uncertainty?

### (https://er.educause.edu/blogs/2020/5/can-hyflex-options-support-students-in-the-midst-of-uncertainty)

### How? Designing a HyFlex Course: Principles and Design Process

#### Fundamental Principles of HyFlex Design

At its core, the Hybrid-Flexible (HyFlex) course design delivers a student-directed multi-modal learning experience. Students choose between attending (participating) in class sessions in a traditional classroom (or lecture hall) setting or online environment. Online participation is available in synchronous or asynchronous mode; sometimes both. When considering whether or not to offer HyFlex classes in a program or institution, it is helpful to understand the values that undergird the approach.

The HyFlex course design is built upon four fundamental values: Learner Choice, Equivalency, Reusability, and Accessibility, each with a corresponding guiding, or universal, principle for designers and instructors to follow. These four “pillars” provide a consistent and solid foundation for resulting courses and programs. (excerpted from Chapter 1.4 of Hybrid-Flexible Course Design, Beatty 2019)

1. **Learner Choice:** *Provide meaningful alternative participation modes and enable students to choose between participation modes weekly (or topically).*

The primary reason a HyFlex course design should be considered is to give students a choice in how they complete course activities in any given week (or topic). Without meaningful choice, there is no flexibility … and therefore no HyFlex.

1. **Equivalency:** *Provide equivalent learning activities in all participation modes.*

All alternative participation modes should lead to equivalent learning. Providing an alternative approach to students which leads to inferior learning “by design” is poor instructional practice and is probably unethical. Equivalency does not imply equality, however.

1. **Reusability:***Utilize**artifacts from learning activities in each participation mode as “learning objects’ for all students.*

Many class activities which take place in classrooms can be captured and represented in an online-delivered form for online students. Podcasts, video recordings, discussion transcripts or notes, presentation files and handouts, and other forms of representation of in-class activities can be very useful – both for online students and for classroom students wishing to review after the class session is finished. In a similar way, the activities completed by online students, such as chats, asynchronous discussions, file posting and peer review, etc. can become meaningful learning supports for in-class students as well as provide useful review materials for online students.

1. **Accessibility:** *Equip students with technology skills and access to all participation modes.*

All course materials and activities should be accessible to and usable for all students. A Audio or video recordings should include text transcripts or be close-captioned, web pages and learning management systems must be “screen reader friendly”, and all forms of online discussion should meet universal design guidelines for accessibility. Clearly, alternative participation modes are not valid alternatives if students cannot effectively participate in class activities in one or more modes. If a student is not physically capable of attending class, then in-class participation is not an option for that student. If a student does not have convenient and reliable Internet access, then online participation may not be a realistic option for that student. Students need the technologies (hardware, software, networks) and skills in using technology in order to make legitimate choices about participation modes.

#### Designing a HyFlex Course: Process Guidance

HyFlex courses allow for student choice in their participation mode, either in the classroom (when available) or online, and in many cases when online, either synchronous and asynchronous participation. (Note: A modified HyFlex design might only support student choice between synchronous and asynchronous modes when the in-person classroom option is not available.)

In a HyFlex course, the instructor provides instructional structure, content, and activities to meet the needs of students participating in any and all participation modes. Activities in each mode often overlap, reusing learning resources, activities, and assessments for all students when possible and practical, but in total, they are typically not the same activities for students in all participation modes. Activities in each mode must lead to be equivalent learning outcomes. No matter which participation format is chosen, teaching and learning activities should ideally:

* Present **content** effectively and professionally
* **Engage** learners with generative learning activities
* Use authentic **assessment** to evaluate student learning

The decision to adopt a HyFlex course design should consider the same factors used to decide whether or not to create a fully online course or a hybrid (or blended) course. Once the decision to deliver all or part of a course in the HyFlex format has been made, there are several important steps that should be completed during the design process (before developing the course) which will help instructors implement an effective HyFlex teaching and learning environment for all students in every participation mode. These steps are not all-inclusive to the course design process; good instructional design practice and a thorough systematic process should still be followed. The design steps highlighted here are included here to emphasize the unique requirements and challenges of the HyFlex course design.

1. Assess the opportunities (value) and challenges (costs).
2. Confirm or modify expected student learning outcomes.
3. Plan student learning activities (focus on content).
4. Plan to assess student learning outcomes.
5. Develop student engagement strategies.
6. Plan for implementation (technical, student, faculty, administrative factors).
7. Evaluate the return on expectations.

Design worksheets attached to the end of this document.

### Other Course Design Formats in the Hybrid-Flexible Genre

There have been many others working on similar approaches to combining classroom students and online students; some very similar – even identical – to HyFlex and others with significant differences from HyFlex. Many of these instructional formats were developed during the same timeframe that we were reporting our work with the HyFlex course design, and others came afterward. All use their own branding (name, primarily) for their own purposes, whether or not they were aware of the HyFlex approach at the time. (The citation details for each article and case referenced in this brief summary are located in the Bibliography of the Hybrid-Flexible open-access book)

#### Mode-Neutral (2008)

#### Multi-Access Learning (2009)

#### Converged Learning (2012)

#### Peirce Fit ® (2014)

#### Multi-Options (2014)

#### FlexLearning (2012)

#### Flexibly Accessible Learning Environment (FALE) (2018)

#### Blendflex (2016)

#### Comodal (2016)

#### Flexible Hybrid (2014)

#### Synchronous Learning in Distributed Environments (SLIDE) (2011)

#### gxLearning (2011)

#### Blendsync (2011)

#### Remote Live Participation (RLP) (2018)

### References

Beatty, B. (2006, October) Designing the HyFlex World- Hybrid, Flexible Classes for All Students. Paper presented at the Association for Educational Communication and Technology International Conference, Dallas, TX.

Beatty, B. (2007a). Transitioning to an Online World: Using HyFlex Courses to Bridge the Gap. In C. Montgomerie & J. Seale (Eds.), Proceedings of ED-MEDIA 2007--World Conference on Educational Multimedia, Hypermedia & Telecommunications (pp. 2701-2706). Vancouver, Canada: Association for the Advancement of Computing in Education (AACE). Retrieved April 5, 2019 from <https://www.learntechlib.org/primary/p/25752/>

Beatty, B. (2007b, October). Hybrid Classes with Flexible Participation Options – If you build it, how will they come? Proceedings of the Association for Educational Communication and Technology International Conference, Anaheim, CA.

Beatty, B. J. (2019). *Hybrid-Flexible Course Design: Implementing Student-Directed Hybrid Classes.* EdTech Books. Available online: <https://edtechbooks.org/hyflex/>

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1. Assess the Challenges (Costs) and Opportunities (Value)

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| **Opportunities: Adding Value**  | **Solving Problems** |
| *List the opportunity-related goals:* | *Explain how flexible delivery design would allow you to meet this goal.* | *List the problem-solving goals:* | *Explain how flexible delivery design would help meet this goal.* |
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| **Challenges: Additional Costs**  |
| **Faculty** | **Students** | **Technology/Resources** | **Administrative** |
| *List the potential or actual costs to the faculty:* | *List the potential or actual costs to the students:* | *List the potential or actual costs associated with resources:* | *List the potential or actual administrative challenges:* |
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2. Student Learning Outcome Analysis Program | Course | Session

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| **Student Learning Outcomes** | **Validation/Modification/Clarification for Online Participation** |
| *List the current course- or session-level student learning outcomes (or create new ones) for face to face participation. Note:* ***Learning*** *outcomes (what is learned) are different than* ***process*** *outcomes (how something is learned).* | *Consider whether these outcomes can be met by students participating online rather than face to face. You may need to consider sync* ***and*** *async online.* |
|  | ***YES*** | ***NO*** | ***Modifications/Clarifications needed for online (sync/async):*** |
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|  | ***YES*** | ***NO*** | ***Modifications/Clarifications needed for online (sync/async):*** |
|  |
|  | ***YES*** | ***NO*** | ***Modifications/Clarifications needed for online (sync/async):*** |
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|  | ***YES*** | ***NO*** | ***Modifications/Clarifications needed for online (sync/async):*** |
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|  | ***YES*** | ***NO*** | ***Modifications/Clarifications needed for online (sync/async):*** |
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 Page \_\_\_ of \_\_\_\_3. Instructional Content Analysis Program | Course | Session

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| **Instructional Goal/Objective 1** | ***In-class Activity*** | ***In-class Resources*** | ***Online Resources*** | ***Action Needed*** |
| *State the goal/objective* | *Describe the content required to support learning.* | *List required materials for in-class participation.* | *Describe differences in materials needed to support online learning (if any).* | *List action steps needed to acquire materials.* |
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| **Instructional Goal/Objective 2** | ***In-class Activity*** | ***In-class Resources*** | ***Online Resources*** | ***Action Needed*** |
| *State the goal/objective* | *Describe the content required to support learning.* | *List required materials for in-class participation.* | *Describe differences in materials needed to support online learning (if any).* | *List action steps needed to acquire materials.* |
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 Page \_\_\_ of \_\_\_\_4. Assessment Approach Analysis Program | Course | Session

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| **Learning Outcome 1** | ***In-class (F2F) Assessment*** | ***Online Assessment*** |
| *State the learning outcome that will be assessed. Note: Not all learning outcomes may be directly assessed, but all major ones should be.* ***Learning*** *outcomes (what is learned) are different than* ***process*** *outcomes (how something is learned).* | *Describe the assessment plan for in-class students.* | *Describe the assessment plan for online students. You may need to plan alternative assessments for both synchronous and asynchronous students.* |
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| **Learning Outcome 2** | ***In-class (F2F) Assessment*** | ***Online Assessment*** |
| *State the learning outcome.* | *Describe the assessment plan for in-class students.*  | *Describe the assessment plan for online students. You may need to plan alternative assessments for both synchronous and asynchronous students.* |
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5. Student Engagement Plan Program | Course | Session

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| **Engagement Strategy**  | **In-class**  | **Online Synchronous**  | **Online Asynchronous**  |
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| **Workflow adjustment:** |
| *What workflow adjustments may be needed by faculty and students to engage meaningful as planned? What are the major challenges to successful engagement for faculty and students?* |

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6. Implementation Planning Program | Course | Session

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| **Technical Factor** | **Classroom Solution** | **Online Synchronous Solution**  | **Online Asynchronous Solution** |
| *Which factors should be considered to help ensure success in each mode?* | *What solution is needed for the classroom?* | *What solution is needed for the synchronous environment?* | *What solution is needed for the asynchronous environment?* |
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| **Challenges: New Resources Needed for Implementation**  |
| **Faculty** | **Students** | **Technology** | **Administrative** |
| *List the new resources needed to support faculty:* | *List the new resources needed to support students:* | *List the new resources needed to support technology-mediated delivery:* | *List the new or revised resources needed to support the administrative aspects of HyFlex:* |
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7. Assess Return on Expectations (consider both short- and long-term)

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| **Expected Return (Value Expectation)** | **Measurement (Data)** | **Planned Analysis** | **Evaluation (Value Returned?)** |
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| **Comments:** |
| *Compare the anticipated value return to the additional costs (actual) - what adjustments are needed?*  |

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