Seed

studio experience for
emerging designers

Faculty Studio Guide

Planning teaching and refining a SEED course

EXPLORE DESIGN MAKE REFLECT ITERATE



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Each topic pairs faculty guidance with a separate Residential Design I example. Select a page number to open the corresponding section.

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SEED GUIDE REFERENCE

Start with your course

The SEED Faculty Studio Guide supports faculty in planning, teaching, and refining courses through the Studio Experience for Emerging Designers framework. It connects course outcomes with authentic challenges, purposeful making, instructional support, critique, reflection, and opportunities to revise. Use it to make the relationships among your existing course decisions clear and to identify changes that would strengthen the student experience.

Residential Design I provides a continuing worked example. Each module connects a planning or teaching decision to that course, explains the reasoning, and identifies how the decision can be adapted within another discipline. The example supplies a point of reference as you develop your own course. Faculty select disciplinary assignments, professional expectations, resources, and assessment criteria appropriate to their approved outcomes.

The five parts follow the Faculty Design Cycle: Explore, Design, Make, Reflect, and Iterate. Begin with the decision you need to make and return to another part when the course calls for it. Examples from additional disciplines can be added within the relevant modules.

01 Read the guidance

02 Study the residential example

03 Apply it to your course

SEED GUIDE REFERENCE

How to use this guide

Before teaching

For initial planning, begin with Explore and Design. Keep the approved course outcomes, current assignments, semester calendar, and available resources nearby. Use the Course Blueprint to record the connections you establish, then develop the Student Journey, Project Cycle plans, and weekly sequence.

During and after teaching

During teaching, return to Make and Reflect for guidance on the learning environment, demonstrations, coaching, critique, assessment, and process documentation. After a Project Cycle or course, use Iterate to examine what happened and identify a practical refinement. These parts may be revisited whenever a planning or teaching decision requires attention.

Use the examples

Each module explains a decision, presents a residential example, discusses the reasoning, and connects the work to an existing planning tool or course record. Short application prompts help you use the guidance. You can record responses directly in your existing plans; the guide does not require a separate reflection document for every module.

Keep planning manageable

The supporting resource directory identifies the role of each companion tool. The tools serve different planning scales, so information can be carried forward and summarized where needed. A completed Course Blueprint, for example, can supply the outcomes and purpose for a Project Cycle plan without requiring a second explanation of the entire course.

SEED GUIDE REFERENCE

SEED foundations

Make professional reasoning visible

Cognitive Apprenticeship and Adaptive Expertise provide the primary theoretical foundations for SEED. Cognitive Apprenticeship emphasizes making expert reasoning available to learners through modeling, coaching, scaffolding, articulation, reflection, and exploration (Collins et al., 1987). In the studio, this means explaining why a decision is made and helping students examine their own reasoning.

Support flexible application

Adaptive Expertise concerns using knowledge flexibly when a familiar procedure does not adequately address a new problem (Hatano & Inagaki, 1984). SEED uses authentic challenges, alternatives, making, critique, and revision to provide opportunities for this kind of application. These are instructional intentions; the presence of a Project Cycle or a completed artifact alone does not demonstrate that adaptive expertise has developed.

Connect the foundations with teaching

The guide translates these foundations into practical decisions. An instructor might model how to compare alternatives, provide a temporary planning structure, invite students to explain a choice, and later ask them to reconsider that choice under changed conditions. The amount of support depends on the task and the students, and it can increase again when a new challenge requires it.

SEED GUIDE REFERENCE

Seven shared components

These seven instructional components provide a shared reference across disciplines. Faculty adapt challenges, media, tools, and schedules while preserving the instructional purpose. The components differ from the seven course planning elements in the Course Blueprint.

THEORETICAL FOUNDATIONS

Cognitive Apprenticeship
Make expert reasoning visible through modeling, coaching, scaffolding, articulation, reflection, and exploration.

Adaptive Expertise
Provide opportunities to apply knowledge flexibly when familiar procedures do not fully address a new situation.

STUDIO LEARNING CONTEXT
Authentic challenges / Making and testing / Critique and revision

SEVEN SHARED INSTRUCTIONAL COMPONENTS

C1
Authentic challenge
A meaningful disciplinary problem, opportunity, or question.

C2
Outcome alignment
Connect experiences and assessment to approved outcomes.

C3
Project Cycle structure
Connect activities to the larger challenge.

C4
Integrated making
Use artifacts to explore, test, develop, or communicate ideas.

C5
Instructional support
Provide modeling, coaching, and scaffolding as needed.

C6
Critique and revision
Consider feedback and provide opportunities to act on it.

C7 Process and evidence
Preserve selected records of decisions, development, and completed work.

Adapt challenges, media, tools, and schedules while preserving instructional purpose.

Foundations: Collins et al., 1987; Hatano & Inagaki, 1984.

SEED GUIDE REFERENCE

Planning layers and cycles

The Faculty Design Cycle organizes the instructor's work across this guide. Student Project Cycles organize learning around authentic challenges within a course. The words Explore, Design, Make, Reflect, and Iterate can describe both processes, but the scale and participants differ.

Planning layer	Main question	Working record
Course	What learning and professional practice does the course bring together?	Course Blueprint
Semester	How does the experience unfold over the available term?	Student Journey
Project	How will students address one connected challenge?	Project Cycle plan and project brief
Week or teaching interval	What do students need to do next, with what support and feedback?	Weekly Studio Experience Map and learning module

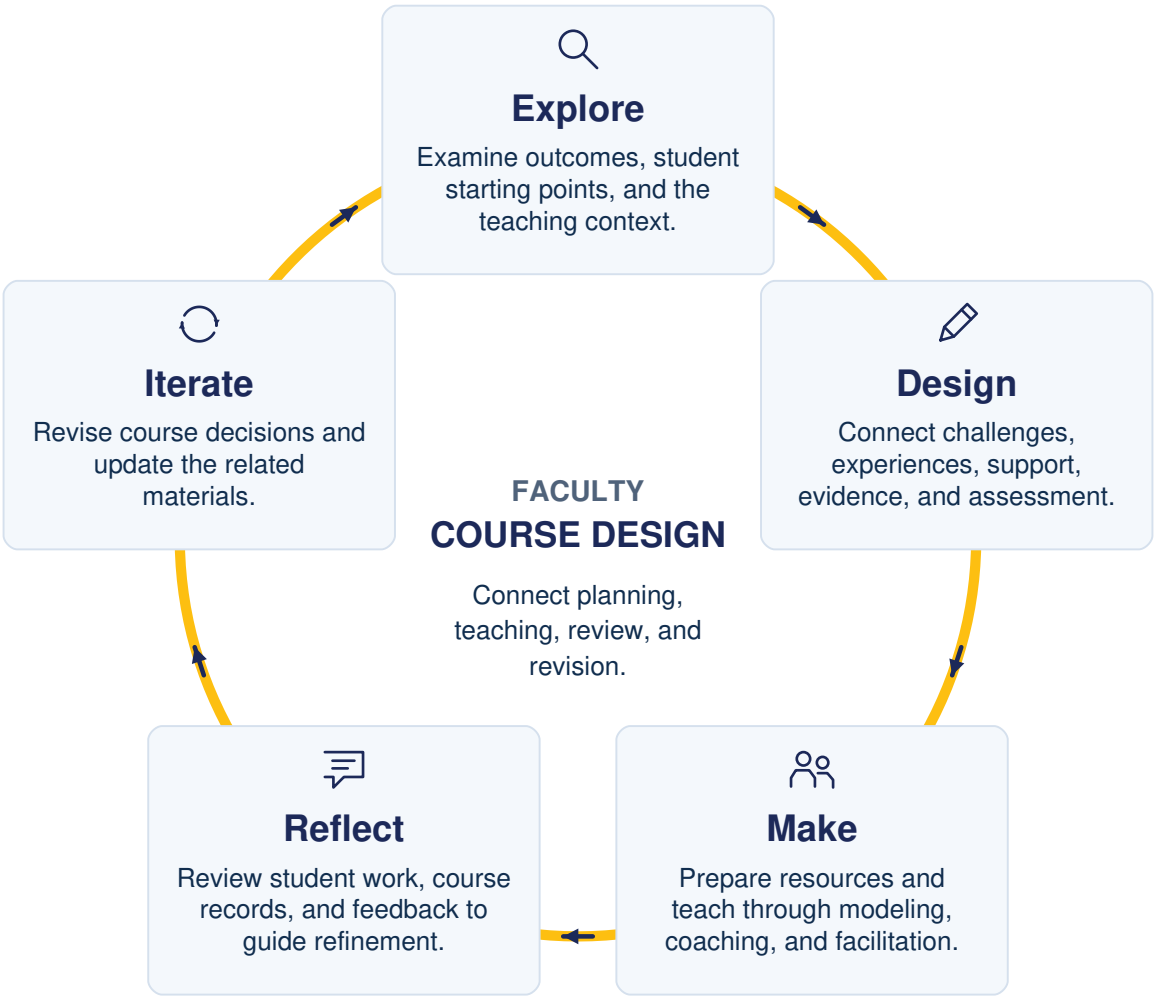
The five phases can overlap and recur. A critique during making may send students back to research; a materials test may change an early design assumption. A Project Cycle does not require five separate assignments or a fixed number of weeks for each phase.

The residential example follows a full 16-week course with two connected Project Cycles. The first eight-week sequence includes planning, instructional support, making, and documentation. Later fabrication, community work, and final presentation belong to the broader semester example.

SEED GUIDE REFERENCE

Faculty Design Cycle

The Faculty Design Cycle organizes the instructor's work across this guide. Return to an earlier decision whenever teaching reveals a new need. Student Project Cycles organize the learners' work around an authentic challenge.



Return to an earlier decision when teaching reveals a new need.

The Faculty Design Cycle organizes instructor planning and refinement. Student Project Cycles organize connected learning around an authentic challenge.

Residential Design I Reference

The residential reference

The worked example is INDS 2313 Residential Design I, taught by Shasta Beveridge at Houston City College. The West Houston Institute and its IDEAStudio makerspace provide the local setting for the course's studio and fabrication resources. Those facilities illustrate the support available in this example; other faculty can plan equivalent learning functions using their own resources.

The semester question is: How can residential design respond to changing human needs, housing challenges, and community life? Project Cycle 1 uses a developed client brief, a Texas location, and an innovation focus to frame a compact-home challenge. A later community-scale challenge asks students to revisit prior decisions while considering additional users, shared spaces, and site relationships.

The residential examples describe course planning choices and include sample teaching prompts, sequences, and assessment language for adaptation. Labels identify teaching illustrations and proposed refinements. Faculty use the examples to examine their own decisions within their course level and disciplinary expectations.

Adapt the resources and format

Making can involve physical materials, digital media, drawings, models, prototypes, or other disciplinary artifacts. A tool or product becomes instructionally useful when students use it to investigate or communicate a decision. Specialized equipment, a live client, an external partner, public exhibition, and entrepreneurship can serve particular courses, but each is a contextual choice rather than a universal requirement.

Adaptation should preserve the instructional purpose of a component. A physical model and a digital prototype may serve a comparable testing purpose in different contexts, although the learning tasks and evidence will differ. Faculty should explain the function of the chosen approach rather than rely on the name of an activity to establish that a component is present.

PART 1 EXPLORE

1.1 Course purpose and student starting points

Establish the purpose

A course purpose explains what the course prepares students to do and why that work matters within the discipline. It gives direction to project selection without replacing approved learning outcomes. A useful purpose is specific enough to influence a decision: it should help explain why an activity, resource, or assessment belongs in the course.

Understand student starting points

Student starting points are equally important. Review what students are expected to have encountered in prerequisite or earlier courses and what they may still need help applying. Distinguish an established requirement from a planning assumption. A prerequisite may confirm prior enrollment, for example, while a short studio task may reveal that students need further practice using that knowledge in the current project.

Describe the intended development

Describe intended student development in terms that can guide teaching. Increasing independence might mean comparing alternatives against criteria, identifying a need for additional information, explaining a design choice, or using feedback to revise. Confidence and professional identity can remain part of the course aspiration, while planning focuses on the practices students will have opportunities to develop.

Apply after reviewing the example

Write a short course purpose and identify two or three practices that would indicate greater capability by the end of the term. Review the support students will need to begin those practices. Record the purpose and developmental direction in the Course Blueprint, using existing course information wherever possible.

Carry the decision into your course records

Use the Course Blueprint fields for Course Purpose and Student Transformation. Carry specific starting assumptions into the first Project Cycle plan or weekly map, where they can inform demonstrations and early activities.

Part 1 Residential Design I Example

1.1 Course purpose and student starting points

The course purpose is to prepare students to investigate residential needs and develop design responses that consider users, place, function, and professional expectations. Students connect research and programming with schematic design, documentation, materials, and presentation. The compact-home challenge provides a shared context in which those practices are used together.

The intended developmental direction is from supported learner toward an increasingly independent, reflective residential designer. In early work, students receive structured client information, examples, demonstrations, and planning guidance. Later work asks them to compare options, explain decisions, and take greater responsibility for identifying the next step.

A useful starting task would be to ask students to examine a brief and identify the questions they would need to answer before designing. This is an illustrative teaching prompt. It can help the instructor decide whether to review research, spatial planning, drawing conventions, or another practice before the first major milestone.

Why these decisions matter

- Connect technical work with residential needs and professional judgment. Students need opportunities to make and explain decisions, with coaching available when needed.
- Use student starting points to choose support. In another discipline, describe development through the relevant practices and the level of the course.

PART 1 EXPLORE

1.2 Outcomes and professional practice

Use approved outcomes

Approved course and program outcomes establish the learning the course is responsible for addressing. Retain their current wording in the completed Course Blueprint. Then identify the professional practices through which students can work toward those outcomes and the evidence that will be available for review.

Connect outcomes with practice

An outcome and a competency play related roles. An outcome states an expected learning performance, while a professional competency identifies a practice, skill, or form of judgment used in the discipline. Connecting them helps faculty choose experiences that have both academic purpose and professional relevance.

Check the connection both ways

A broad project can address several outcomes, but each outcome still needs a suitable opportunity for practice and demonstration. Review the connection in both directions. Ask what an activity contributes to the outcomes and where each outcome becomes visible in the work. An attractive final artifact may show some outcomes clearly while leaving research, reasoning, or revision difficult to assess.

Apply after reviewing the example

Choose one approved outcome and trace it through professional practice, an activity, a record of learning, and assessment. Repeat the check across the course without creating a separate assignment for every outcome. Several outcomes can be addressed through a coherent project when their contributions remain identifiable.

Carry the decision into your course records

Use the outcomes and competencies fields in the Course Blueprint. Review the same connections when developing the Project Cycle plan and rubric so that the wording and expectations agree.

Part 1 Residential Design I Example

1.2 Outcomes and professional practice

The residential Course Blueprint identifies five course outcomes. The table preserves the wording used in that course record and shows how the project sequence can support each one. The evidence is illustrative of the planned course alignment.

Course outcome	Connected professional practice	Planned evidence
Apply programming procedures to residential projects.	Investigate users, context, spatial needs, and design criteria.	Research, client and site analysis, residential program, and design criteria.
Develop schematic drawings based on client briefs.	Translate programming into alternatives and evaluate their suitability.	Adjacency studies, schematic alternatives, comparison, and selected direction.
Produce floor plans utilizing proper architectural conventions.	Communicate spatial and technical decisions through coordinated drawings.	Scaled plans with dimensions, symbols, annotations, and appropriate conventions.
Select appropriate materials and finishes for residential spaces.	Evaluate materials in relation to users, concept, function, and performance.	Material selections and explanations connected to the project requirements.
Create professional presentations to showcase final designs.	Organize drawings, visualizations, and spoken or written explanations for an audience.	Design reviews, presentation materials, and explanations of decisions.

Why these decisions matter

- Programming criteria carry forward into comparison, design development, and communication. Each milestone should provide evidence relevant to the outcomes.
- Identify outcomes that need stronger opportunities for practice or demonstration. When adapting this example, use the approved course and program outcomes for your own context.

PART 1 EXPLORE

1.3 Authentic challenge and available support

Frame the challenge

An authentic challenge gives students a meaningful reason to use disciplinary knowledge. It identifies a problem, opportunity, or question together with relevant users, audiences, conditions, or constraints. Authenticity can be established through a carefully developed brief; a live client or external partnership is one possible source of context.

Keep the scope workable

Select a challenge that can be addressed within the course's level, time, and resources. The scope should allow students to investigate, generate alternatives, make or develop something, receive feedback, and revise. A challenge that is too large may leave little room for those processes, even when its subject is compelling.

Plan meaningful choices

Student choice can be structured around decisions that matter. Faculty establish the outcomes, common expectations, and necessary constraints, while students make decisions about context, users, direction, media, materials, or other disciplinary variables. Review whether the choices offer comparable opportunities to address the outcomes and whether each pathway has suitable support.

Apply after reviewing the example

Describe one challenge, its common expectations, and the choices students can make. Identify a resource or support for the decisions that are likely to be difficult. Check that students can pursue the planned learning even if an optional partner or specialized tool becomes unavailable.

Carry the decision into your course records

Use the project brief to communicate the challenge and the Project Cycle plan to connect its activities and milestones. Record resource access, preparation, and alternatives in the Professional Resource Map or existing teaching plan.

Part 1 Residential Design I Example

1.3 Authentic challenge and available support

Project Cycle 1 uses a compact-home challenge framed through a developed client brief. Students select among defined options for location, client or household, and innovation focus. The choices create different design conditions while preserving common expectations for programming, schematic alternatives, documentation, critique, and presentation.

The instructor can explain that a location affects climate, site considerations, and the research students need to conduct. Household needs affect programming and spatial relationships. An innovation focus must inform a design decision that can be investigated and explained, rather than appear only as a theme in the final presentation.

The course can draw on professional precedents, planning references, faculty demonstrations, peers, and makerspace support. Physical or digital studies give students opportunities to examine scale, relationships, and the implications of a proposal. The specific resource should be selected for the decision it helps students make.

Why these decisions matter

- A developed brief provides common expectations with room for different solutions. Live clients, partners, and guest critics can add perspective when arrangements are feasible.
- Entrepreneurship is a contextual choice. Include it when it serves the outcomes and disciplinary purpose; it is not a universal SEED requirement.

PART 2 DESIGN

2.1 The Course Blueprint

The Course Blueprint connects seven course planning elements. Use existing course information to establish these relationships, then trace an important outcome through practice, experiences, support, evidence, and assessment.

COURSE DIRECTION

1 Course Purpose
Why does the course matter, and what does it prepare students to do?

2 Student Transformation
What development in thinking, practice, and independence is intended?

3 Program and Course Outcomes
Which approved learning outcomes guide the course?

PROFESSIONAL PRACTICE AND EXPERIENCES

4 Professional Competencies
Which knowledge, skills, and professional practices will students use?

5 Authentic Learning Experiences
What will students investigate, decide, make, discuss, and revise?

EVIDENCE AND ASSESSMENT

6 Evidence of Learning
Which records can show developing reasoning and completed performance?

7 Assessment Strategy
How will feedback and evaluation address the outcomes and criteria?

Use the fields together and revisit them as course decisions change.
Record the sequence in the Student Journey and Project Cycle plans.

Use the editable Course Blueprint template and the Residential Design I worked Blueprint supplied with this guide. Keep detailed directions in the project brief, criteria in the rubric, and logistics in the weekly plan.

Part 2 Residential Design I Example

2.1 The Course Blueprint

The residential Blueprint connects investigation of users and place with design development and communication. Its purpose and intended development establish why programming, alternatives, critique, documentation, and presentation belong together. Two connected Project Cycles provide opportunities to revisit those practices under different conditions.

Planning element	Completed residential example
Course Purpose	Prepare students to investigate residential needs and develop design responses that consider users, place, function, and professional expectations.
Student Transformation	Support students in becoming increasingly independent, reflective residential designers who can explain and justify their decisions.
Program and Course Outcomes	Connect the five course outcomes in the residential planning record with programming, schematic drawings, architectural conventions, material selection, and professional presentation. The course-level alignment is shown in Section 1.2.
Professional Competencies	Programming, research and analysis, concept development, space planning, technical documentation, materials selection, visualization, and professional communication.
Authentic Learning Experiences	Investigate a developed client brief, research a location, compare alternatives, develop drawings and models, participate in critique, and revise decisions.
Evidence of Learning	Programming records, design criteria, concepts, alternatives, drawings, models, critique responses, revisions, and presentations.
Assessment Strategy	Provide formative review during development and evaluate milestone or completed work using criteria appropriate to the outcomes and project phase.

Part 2 Residential Design I Example

2.1 Follow one alignment

01 Course outcome

Develop schematic drawings based on client briefs.

02 Professional practice

Translate programming information into spatial alternatives and evaluate their suitability.

03 Learning experience

Develop three schematic alternatives using the client brief, programming findings, and established design criteria.

04 Instructional support

Model how a designer compares alternatives, then use questions and critique to help students examine their own decisions.

05 Evidence

Schematic drawings, an evaluation of alternatives, and an explanation of the selected or combined direction.

06 Assessment focus

Examine the response to the brief and design criteria, the clarity of the reasoning, and the use of feedback.

Why these decisions matter

- Use the Blueprint to identify an activity's purpose, select relevant support, and notice outcomes that need stronger opportunities for practice.
- Keep the Blueprint concise. Put detailed student directions in the brief, criteria in the rubric, and logistics in the weekly plan.

PART 2 DESIGN

2.2 The Student Journey and Project Cycles

View the semester

The Student Journey shows how the course unfolds across the term from the student's perspective. It connects major challenges, milestones, feedback, resources, and opportunities for increasing responsibility. Use it to examine the experience students encounter, including demanding intervals, transition points, and time to act on feedback.

Plan one connected challenge

A Project Cycle plan focuses on one connected challenge within that journey. It identifies the outcomes, activities, making, instructional support, evidence, and assessment associated with that project. The number and length of Project Cycles depend on course design; two cycles are part of the residential example rather than a universal requirement.

Allow the phases to recur

Explore, Design, Make, Reflect, and Iterate describe recurring activity across a Project Cycle. Research can continue during design, and a model can prompt further investigation. Reflection and iteration should occur while decisions can still change. Their placement at the end of the phase list does not confine them to the final week.

Apply after reviewing the example

Map the available teaching weeks and major learning demands before setting milestone dates. Identify when feedback can influence the next decision and where making contributes to investigation or development. Check the workload across projects, resource preparation, holidays, and final presentation requirements.

Carry the decision into your course records

Keep the Student Journey, Project Cycle plan, project brief, and calendar aligned. The brief communicates what students must do; the cycle plan records the instructional sequence. Update related records together when a milestone or expectation changes.

PART 2 DESIGN

The SEED Project Cycle

Use the phases to connect activity around one authentic challenge. Adjust the sequence and duration to the course; phases can overlap and recur.



Modeling, coaching, scaffolding, and critique support the whole cycle.

Return to any phase when the work requires it. Research can continue during making, and critique can reopen a design decision.

The number and length of Project Cycles vary by course and challenge.

Part 2 Residential Design I Example

2.2 The Student Journey and Project Cycles

Project Cycle 1, Designing New Models of Living, develops a compact-home proposal over the first eight weeks. The later Designing Community challenge extends the context to multiple users, shared spaces, and site relationships.

SEMESTER QUESTION

How can residential design respond to changing human needs, housing challenges, and community life?

PROJECT CYCLE 1 — Designing New Models of Living / Weeks 1-8

1 Discover
Client, place, and innovation; prepare for the course and making resources.

2 Program
Investigate users, context, and site; establish needs and design criteria.

3 Develop a concept
Connect a concept statement, visual narrative, and spatial strategy.

4 Compare alternatives
Evaluate three schematic options and select a direction.

5 Develop and test
Develop plans and elevations; use a massing study to examine decisions.

6 Coordinate
Develop the coordinated package and prepare for review.

7 Present and revise
Use a Design Development Review and a KEEP / CHANGE / RESOLVE response.

8 Document
Complete the drawing milestone and establish a fabrication strategy.

LATER SEMESTER — Sequence and dates follow the course calendar.

Project Cycle 2 / Designing Community
Revisit the process with multiple users, shared spaces, and site relationships. Develop fabrication and model work alongside the later challenge.

Curate and present
Connect home, community, making, and the design narrative.

INTENDED DEVELOPMENT

Supported practice → **Increasing independence**

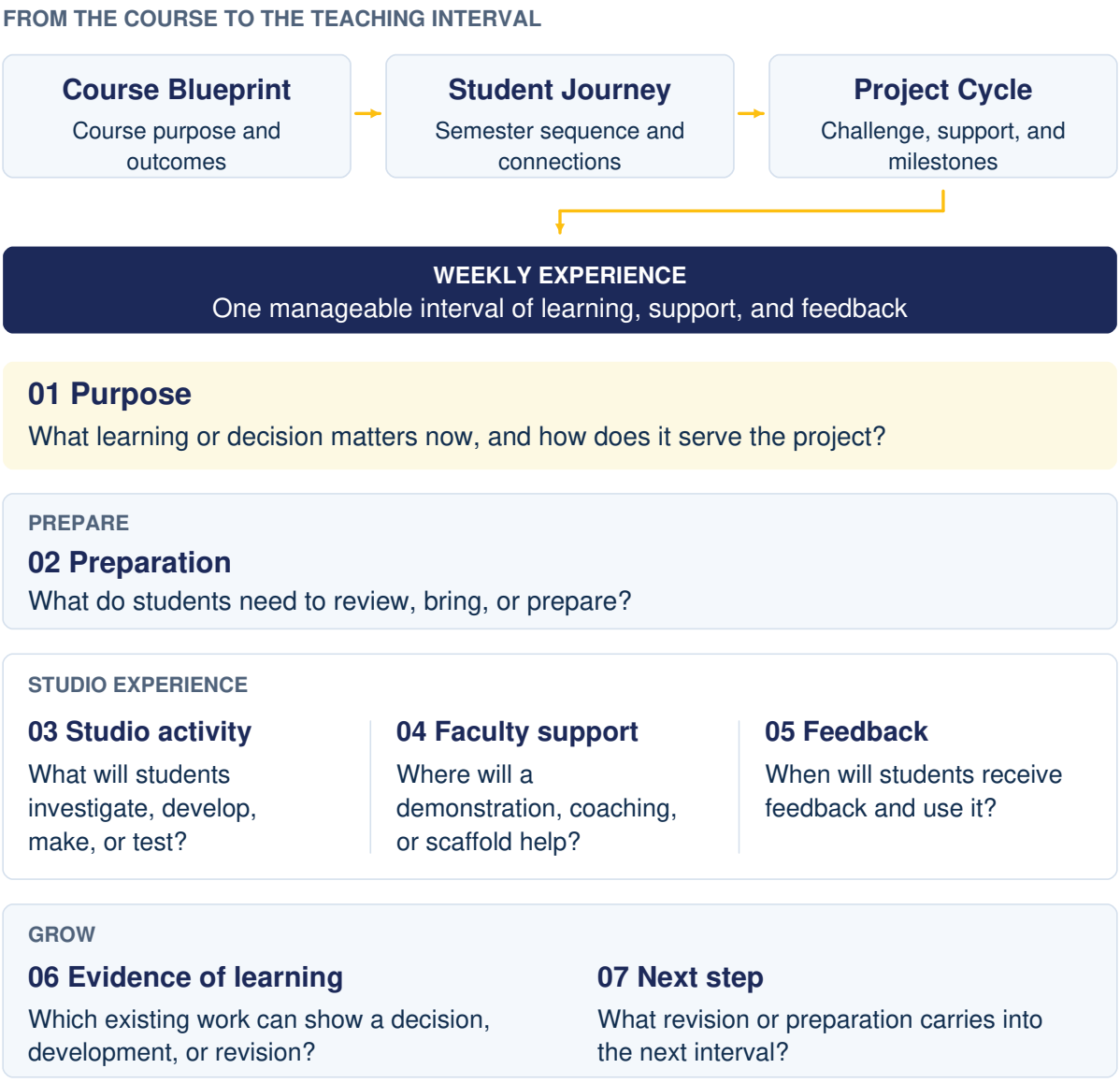
Modeling, coaching, scaffolding, critique, and revision continue across the semester. Adjust support as students encounter new demands.

The Week 5 massing study supports exploration and development within the first cycle. Later final-model fabrication and exhibition remain part of the semester. Milestones and feedback help students carry earlier decisions into the next challenge.

PART 2 DESIGN

2.3 The Weekly Studio Experience Map

Use the Weekly Studio Experience Map to connect the current Project Cycle with one week or another useful teaching interval. The seven fields identify what students need now and how the experience carries the project forward.



Use the fields together. Preparation, making, critique, reflection, and revision may recur across a week, class meeting, or other teaching interval.

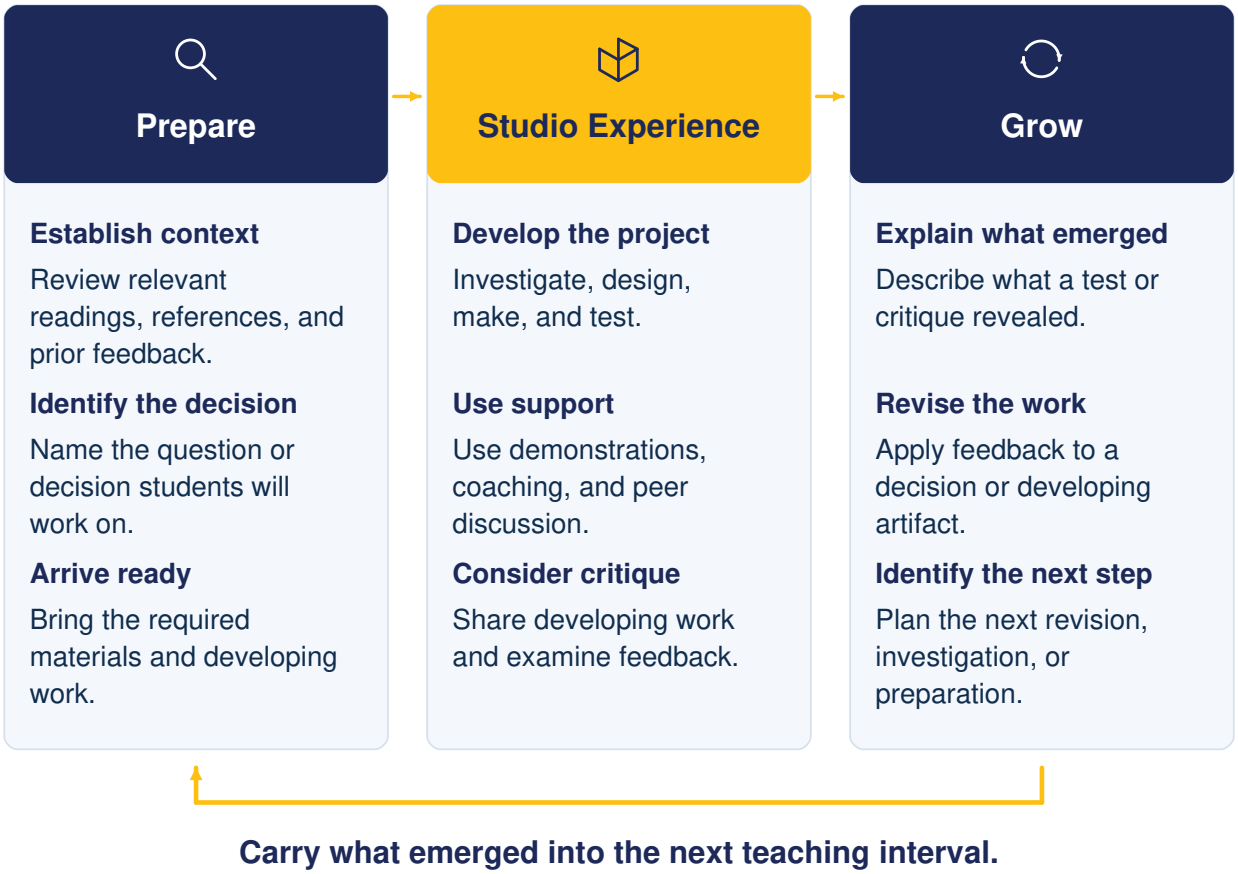
The editable map and Residential Design I example are supplied with this guide. Carry dates and detailed requirements into existing modules and milestone instructions. Making, feedback, reflection, and revision may recur throughout the interval.

PART 2 DESIGN

Weekly Studio Rhythm

Use the rhythm to communicate preparation, participation, and follow-through within your course's meeting pattern.

Use the current Project Cycle decision to connect the work before, during, and after studio activity.



ADJUST THE RHYTHM TO YOUR COURSE

Use existing modules, activities, and milestones to carry the plan.

These headings organize participation and communication. Making, feedback, reflection, and revision can occur throughout the interval. Adapt the timing to the course's meeting pattern.

Part 2 Residential Design I Example

2.3 The Weekly Studio Experience Map

This Week 5 planning example shows how a development interval connects to the compact-home challenge. The activities and teaching prompts illustrate the Weekly Studio Experience Map in use.

Weekly planning field	Week 5 design development illustration
Purpose	Develop the selected schematic direction and examine coordination among interior plans, elevations, and overall form.
Preparation	Revisit the client brief, design criteria, selected alternative, and critique priorities. Review relevant drawing and model examples.
Studio activity	Develop interior plans and preliminary elevations. Construct a massing study to examine a spatial or formal decision.
Faculty support	Model how a change in plan affects another view or the overall form. Coach students through a specific coordination problem.
Feedback	A desk critique compares the proposal with the brief. Each student identifies a priority to resolve and uses the feedback in a reasoned revision.
Evidence of learning	Developing plans, elevations, the massing study, and an explanation of a design decision provide evidence within the existing course work.
Next step	Revise the identified coordination issue and prepare the coordinated package for the Week 6 development interval.

Why these decisions matter

- The massing study helps students examine a design decision and explain what they learned from it.
- The map identifies when a demonstration or resource is needed. Meeting patterns can vary while purpose, activity, support, feedback, and next steps remain connected.

PART 3 MAKE

3.1 The learning environment and student orientation

Make the environment usable

The learning environment includes the physical studio, online course space, communication routines, shared resources, and expectations for participation. Students need to know where to begin, how to find the current work, when feedback occurs, and where to seek help. A recognizable structure can support this navigation while the challenge itself develops.

Organize the current work

Organize the digital space around the course's actual work. A module overview can explain the purpose of the interval, the relationship to the Project Cycle, the preparation required, the main activity, and the next milestone. Keep submission instructions, file expectations, criteria, and dates easy to locate and consistent with the project brief.

Orient students to the process

Student orientation should explain how learning will work within SEED. Introduce the authentic challenge, the role of making, the expectation that unfinished work will be discussed, and how feedback and revision connect. Explain the difference between preparing for studio, working during studio, and completing work between meetings.

Apply after reviewing the example

Open one current module from the student's perspective. Check whether its purpose, preparation, work, support, submission, and next step are clear. Revise the structure and reuse it where helpful, while retaining the activities and communication methods that fit your discipline.

Carry the decision into your course records

Use the student SEED introduction, the weekly map, and the module overview. Review the orientation when the course's Project Cycle structure or major expectations change.

Part 3 Residential Design I Example

3.1 The learning environment and student orientation

Residential Design I uses Canvas as its digital studio. Weekly modules connect the compact-home or community challenge with resources, demonstrations, activities, milestone instructions, and reflection or critique. The local platform illustrates the organization; another learning management system can provide the same functions.

The existing student SEED introduction module can orient students to the process and vocabulary before they begin the project. Pair it with the residential brief and one example of a developing design. Students can then see how the general framework connects to the work they will actually produce.

Sample Week 5 module overview

This week you will develop your selected direction through plans, elevations, and a massing study. Use the client brief and design criteria to examine the decisions that still need resolution. Bring the current views and model to critique, then identify the revision that will move the proposal toward a coordinated package.

Why these decisions matter

- The overview explains how several forms of work belong together and prepares students to discuss an unresolved decision.
- Keep information easy to find. Review headings, links, readable type, contrast, and access while adapting activities to the course.

PART 3 MAKE

3.2 Modeling coaching and scaffolding

Choose the support

Faculty support helps students use disciplinary knowledge within the challenge. Modeling makes a process and its reasoning available for observation. Coaching responds to the student's developing work, while scaffolding supplies temporary structure or assistance where the task requires it. Articulation, reflection, and exploration help students examine and increasingly direct their own work (Collins et al., 1987).

Model a decision

Plan a demonstration around a decision that students need to understand. Explain the information being used, the alternatives being considered, and the reason a particular approach is chosen. Include an uncertainty or tradeoff when it is relevant so students can see that professional reasoning involves judgment as well as procedure.

Coach the developing work

During coaching, examine what the student has already tried. A question, example, brief explanation, or targeted demonstration may be more useful than repeating an entire process. Adjust support to the evidence available, and invite the student to identify the next decision. Independence does not require removing help when the task still calls for it.

Apply after reviewing the example

Identify one decision that students often find difficult. Plan a short demonstration that explains the reasoning, then an opportunity for students to apply it to their own work. Decide what you will look or listen for when judging whether further coaching is needed.

Carry the decision into your course records

Add the demonstration, coaching focus, and any temporary support to the weekly map. Preserve useful teaching examples in the course resource collection so they can be refined and reused.

Part 3 Residential Design I Example

3.2 Modeling coaching and scaffolding

The residential materials place faculty demonstrations and coaching alongside programming, schematic design, and technical development. The following teaching illustration shows how an instructor could make the comparison of schematic alternatives explicit.

Begin with the client brief and a small set of design criteria. Compare two possible layouts while explaining how circulation, adjacency, privacy, and spatial priorities affect the choice. Identify a tradeoff that cannot be resolved by appearance alone, then show what additional information or test would help.

Students can use the same comparison process with their three alternatives. During critique, ask which criterion supports their preferred direction, what another option handles differently, and what remains unresolved. A student can then select, combine, or revise an option with an explanation connected to the brief.

A temporary comparison framework may support this work. As students become more capable, the instructor can ask them to identify suitable criteria and organize the comparison themselves. New technical or community-scale demands may require renewed modeling even when students are more independent in other parts of the process.

Why these decisions matter

- Connect a visible artifact with the reasoning behind it. Invite students to apply the process to their own work and explain their decisions.
- Use demonstrations, readings, examples, questions, and practice as needed. Adjust support when the task or the student's understanding calls for it.

PART 3 MAKE

3.3 Making resources and studio routines

Give making a purpose

Making gives students a way to explore, test, develop, or communicate an idea through action. The artifact may be physical, digital, or a combination of both. Select the form according to the question students need to investigate and the practices the course is intended to develop.

Interpret what the artifact reveals

A making activity should lead to interpretation. Ask what the student notices, what the test makes visible, and what decision follows. A well-finished artifact may be appropriate for communication, while a rough study may be more useful when an idea still needs to change. The required level of resolution should match the activity's purpose.

Plan resources and access

Resources include people, places, information, materials, software, and tools. Plan when students need them and what preparation is required. The Professional Resource Map can connect a resource to a Project Cycle phase, its instructional role, access arrangements, and an alternative if needed.

Apply after reviewing the example

Choose one making activity and name the question it helps students examine. Identify the resource, preparation, feedback, and decision that follow. Review a feasible alternative that preserves the purpose if the preferred equipment, material, or partner is unavailable.

Carry the decision into your course records

Use the Professional Resource Map, the project brief, and the weekly map. Carry specific access arrangements and preparation requirements into the student instructions rather than relying on a general resource list.

PART 3 MAKE

Professional Resource Map

BEGIN WITH A LEARNING DECISION

What do students need to investigate, test, develop, or communicate?

Resources can support several phases of a Project Cycle.

PHASE	POSSIBLE RESOURCES	LEARNING PURPOSE
Explore	People, places, briefs, and references.	Investigate context, needs, and constraints.
Design	Precedents, standards, mentors, and critique.	Develop and compare possibilities against criteria.
Make	Materials, software, tools, and technical support.	Test, develop, or communicate an idea.
Reflect	Peers, faculty, reviewers, and project criteria.	Examine work and interpret feedback.
Iterate	Feedback, further references, and targeted support.	Revise a decision, test again, or reconsider an approach.

BEFORE STUDENTS NEED THE RESOURCE

Access
Confirm availability, timing, cost, and a contact.

Preparation
Plan orientation, setup, materials, and lead time.

Alternative
Choose a feasible option that preserves the learning purpose.

Use resources available in your context; external partners and specialist facilities are optional.

Part 3 Residential Design I Example

3.3 Making resources and studio routines

In the residential course, drawings, digital models, massing studies, and later fabricated models provide different ways to examine and communicate design. The Week 5 massing model belongs within the first eight-week cycle. More developed home models and site fabrication extend into the later semester sequence.

The local course can draw on the IDEAStudio's fabrication resources and staff. Access requires appropriate orientation, preparation, scheduling, and attention to the facility's current requirements. The course plan should establish those arrangements before an equipment-dependent task becomes due.

A useful making sequence begins with a question about scale or spatial relationships, develops a study, compares the result with the plan or brief, and records the resulting decision. Where equipment is unavailable, faculty can consider a suitable analog or digital approach that preserves the intended learning function. The choice should still allow the student to examine the relevant issue.

Why these decisions matter

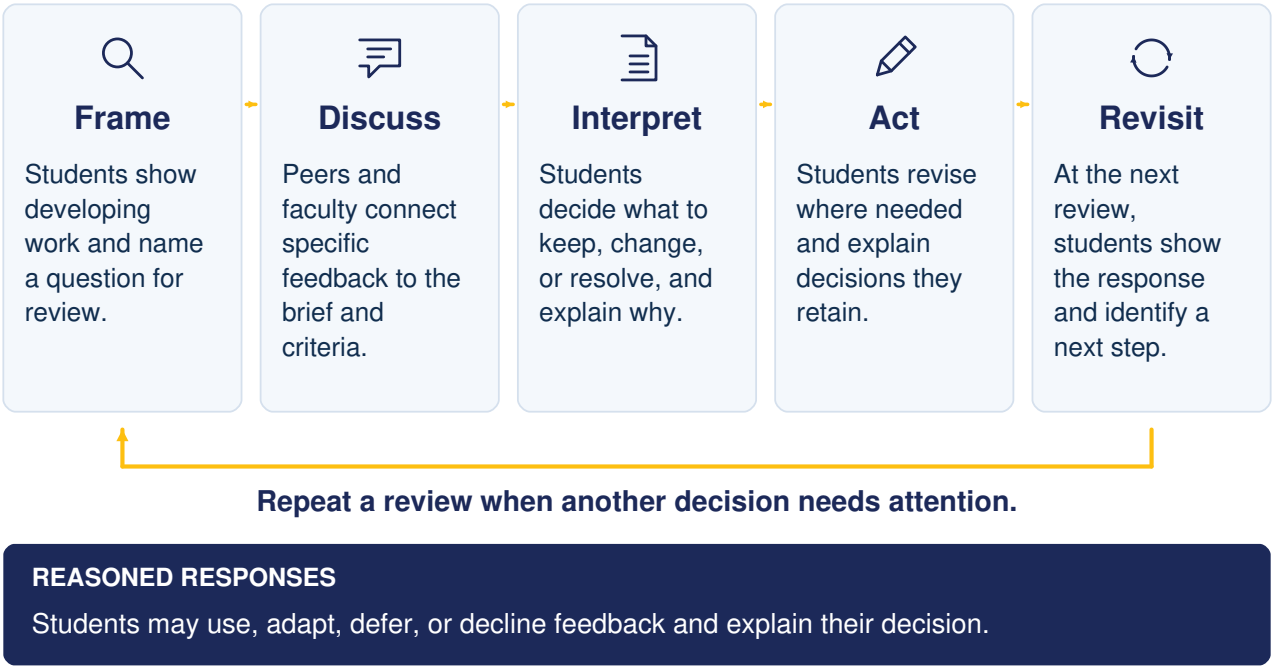
- Introduce a resource when students can use it to examine a decision. Consider the instructional value alongside access, preparation, cost, and time.
- Give partners and emerging technologies a defined role. Communicate applicable expectations for checking information, authorship, attribution, and permitted tool use.

PART 4 REFLECT

4.1 Critique reflection and revision

Plan the review

Choose a point when work can still change. Ask students to name the decision or question for review and show the relevant developing work. Establish a focus using the brief and criteria, and allow time for students to consider and use the feedback.



Connect reflection with the next action

Use the next milestone to make the response visible. Students can show a revision, explain a decision they retained, and identify what remains unresolved. Reflection may be spoken, annotated, diagrammed, or briefly written.

Carry the decision into your course records

Record the critique focus, response, and next review point in the existing project instructions, critique prompt, or milestone record.

Part 4 Residential Design I Example

4.1 Critique reflection and revision

The residential plan includes schematic comparison, desk critique, a Week 7 Design Development Review, and a KEEP CHANGE RESOLVE response. These moments allow students to examine developing work before the Week 8 documentation milestone. The response can establish priorities rather than generate a second full account of the project.

The following prompts illustrate how critique can lead to action. They are sample teaching language for adaptation.

01 Before critique

Which decision is ready for review, and what question do you need help examining? Focus the discussion on developing work.

02 During critique

What in the brief, criteria, or drawing supports that interpretation? Connect feedback with an explicit basis.

03 After critique

What will you keep, change, or resolve, and why? Establish a reasoned response.

04 At the next review

Show the revision or explain why your direction remained appropriate. Connect reflection with subsequent work.

A critique of a compact-home plan might examine the relationship between circulation and a household need. The student can show an alternative, explain the tradeoff, and identify what another drawing or study would help resolve. This is an illustration of the process, not an account of a specific student's work.

Why these decisions matter

- Connect discussion with a visible next action. Focus feedback on the work and model respectful, specific critique.
- Reflection can be spoken, annotated, diagrammed, or briefly written. Use an existing milestone record when it can show the response without duplicating work.

PART 4 REFLECT

4.2 Assessment and rubrics

Plan assessment for the outcomes

Assessment should help faculty and students examine the learning identified in the course outcomes. Formative assessment supplies information that can guide developing work. Summative assessment evaluates the performance or completed work at an identified point. A milestone can serve one or both purposes when expectations are clear.

Make quality explicit

Plan criteria alongside the challenge and evidence. Identify the knowledge, practice, and judgment students need to demonstrate, then decide what quality would look like at the course level. Completion requirements can establish what must be present, while performance criteria explain how the work will be examined.

Share criteria early

Share criteria early enough to inform preparation and revision. Students can use the same language during self-review, peer critique, and faculty discussion. Faculty retain responsibility for academic evaluation and should explain how any external feedback relates to the course assessment.

Apply after reviewing the example

Review one rubric against its outcome, brief, and evidence. Revise vague criteria into descriptions students can use to examine their work. Check that formative feedback arrives while students can still improve the performance that will later be evaluated.

Carry the decision into your course records

Use the existing rubric and assignment brief. Keep official weights, submission requirements, and grading policies in the normal course records, and confirm that any illustrative guide excerpt agrees with those records before adopting it.

Part 4 Residential Design I Example

4.2 Assessment and rubrics

The residential criteria follow the current professional phase. Schematic review addresses the brief, alternatives, and communication; documentation also requires drawing conventions and coordination.

Illustrative rubric excerpt. This model is available for adaptation. It is not the approved course rubric and establishes no point values or grading policy.

Criterion	Developed performance	Developing performance	Further work needed
Response to the brief and criteria	Decisions are explained through relevant user needs and design criteria; important tradeoffs are addressed.	Some decisions connect to the brief, while other choices or tradeoffs need explanation.	Key decisions have little support from the brief or omit important requirements.
Comparison of alternatives	Distinct options are examined using relevant criteria, with a reasoned selected or combined direction.	Options are provided, but the comparison or basis for selection is incomplete.	Alternatives or the basis for choosing a direction are missing or unclear.
Communication of the proposal	Drawings and explanations make the spatial decisions understandable at the required phase.	The direction can be followed, with gaps or inconsistencies that need correction.	Communication gaps prevent the main decisions from being examined adequately.

Why these decisions matter

- Describe observable qualities connected to the task. Students should be able to use the criteria before evaluation.
- Assess process through relevant evidence, such as a comparison or justified revision, rather than presumed effort, personality, or confidence.

PART 4 REFLECT

4.3 Process documentation and portfolios

Preserve selected development

Process documentation preserves selected decisions and changes alongside the finished work. Faculty should identify what is useful to retain and when it is already produced within the project. A manageable sequence is more useful than a large collection that cannot be interpreted.

Choose useful records

Select records that show an initial direction, development, feedback or testing, a revision, and the completed response where appropriate. These functions do not require a separate file for every stage. A single presentation may contain several stages, while a project with multiple media may need several records to explain one decision.

Curate for a purpose

Documentation supports teaching when students use it to revisit choices, explain development, or prepare for a later challenge. Portfolio use adds a further communication purpose. Students can curate selected process records and completed artifacts to explain the project for an audience beyond the course.

Apply after reviewing the example

Choose a small set of existing artifacts that can explain one important development in the project. Establish a practical way for students to retain versions and brief context. If portfolio use fits the course, identify the audience and the evidence most useful for that audience.

Carry the decision into your course records

Use milestone instructions, existing process records, and portfolio guidance where applicable. Keep selected versions and enough context to explain the decisions and changes they show.

Part 4 Residential Design I Example

4.3 Process documentation and portfolios

The residential sequence naturally produces programming records, design criteria, concepts, schematic alternatives, developed drawings, models, critique responses, and final communication. Students can preserve selected versions as they work. The sequence is easier to interpret when the relevant brief, date or milestone, and short explanation remain associated with each record.

A compact portfolio account might include the project context, an early program or concept, an alternative considered, a revision informed by critique or testing, and the completed design. A short narrative can explain what changed and why. This is a suggested curation approach rather than a requirement to reproduce every course submission.

The course plan includes later model fabrication and presentation beyond the first eight weeks. A full-semester portfolio may include that later work. A progression selected for a more narrowly bounded purpose must be interpreted according to the work and period it actually includes.

Why these decisions matter

- Curate records that make a decision or revision understandable. A portfolio selects and organizes work for an audience.
- Confirm applicable permissions and attribution before public reproduction of student, client, partner, or third-party material.

PART 5 ITERATE

5.1 Review the course

Begin with a focused question

Course review begins with a focused question about the learning experience. Faculty may need to understand a recurring difficulty, an unclear instruction, a resource constraint, or the timing of feedback. Begin with the records already available and distinguish what each source can show.

Distinguish the sources

An assignment brief shows the intended work. A student artifact may show a particular response, while a critique note or reflection may help explain a decision. Faculty recollection supplies another perspective and should be identified as such. Several records can deepen understanding, but they can also disagree or leave a question unresolved.

Examine patterns in context

Look for patterns with attention to context. A single case can reveal an issue that deserves attention, while repeated examples can help identify a broader planning concern. Consider differences in preparation, access, task demands, and support before attributing a result to one feature of the course.

Apply after reviewing the example

Select one issue that would be useful to understand before the next offering. Identify the available records, what they show, and what remains uncertain. Write a short interpretation that separates the evidence from your explanation of it.

Carry the decision into your course records

Use existing course review notes, milestone records, feedback, and teaching plans. Retain a short explanation of the issue, the relevant records, and the interpretation that informs a possible change.

Part 5 Residential Design I Example

5.1 Review the course

A review of the residential schematic sequence could ask whether students had adequate guidance for comparing alternatives before selecting a direction. Relevant records would include the brief, the Week 4 instructions, examples of comparisons, critique records, and the instructor's account of support. The question concerns a specific planning and teaching relationship.

If the available comparisons were incomplete, faculty would still need to examine whether the expectation was clear, the relevant practice had been modeled, or time and preparation affected the work. A final grade alone would not resolve those possibilities.

Faculty might also examine whether the Week 5 massing activity helped students identify issues that mattered to their designs. The model, accompanying explanation, and later revision could supply relevant context. The review should acknowledge when a record is insufficient to establish how the activity informed a decision.

Why these decisions matter

- A focused question keeps review manageable. Separate the intended plan, documented activity, and the instructor's interpretation.
- Local review can inform teaching changes. Wider claims about causal effectiveness or long-term transfer require an appropriate design and evidence.

PART 5 ITERATE

5.2 Plan a practical refinement

Define a practical change

A practical refinement identifies what will change, why the change is warranted, and how it will be examined. Keep the scope small enough to implement while preserving the course purpose and outcomes. A change may concern wording, sequence, demonstration, resource access, critique timing, or assessment.

State the basis for the change

Use the review to distinguish a supported concern from an assumption. If the evidence is incomplete, a useful next step may be to clarify the expectation or preserve a small amount of context during the next offering. The proposed change should be described as a plan until its use and consequences have been examined.

Update connected records

Check the documents affected by the change. Moving a critique, for example, may require edits to the calendar, Project Cycle plan, weekly map, brief, and learning module. Update the connected records together so students receive one coherent set of expectations.

Apply after reviewing the example

Write one refinement with a reason, the records it affects, and a practical review question for the next offering. Identify preparation or support needed before implementation. Retain the earlier version so that the change can be understood in context.

Carry the decision into your course records

Use an existing course improvement record or brief planning note. Identify the change, its reason, the connected records, and what you will examine during the next offering.

Part 5 Residential Design I Example

5.2 Plan a practical refinement

This planning example considers how a course review could lead to a specific teaching change. The proposed refinement would be examined during a later offering.

Planning question	Illustrative refinement
What issue is being examined?	Students may need clearer support for explaining the comparison of schematic alternatives.
What would need checking?	The comparison instructions, faculty demonstration, developing student explanations, and timing of feedback.
What change is proposed?	Add a brief modeled comparison using explicit design criteria before students evaluate their own options.
Which records would change?	Week 4 map and overview, the schematic milestone instructions, and the demonstration resource.
How could usefulness be examined?	Review whether students can explain a basis for selection and identify unresolved tradeoffs; note support still required.
What remains uncertain?	Whether the change is workable for the class and how other conditions affect the comparison.

Why these decisions matter

- Describe the proposed teaching change, the reason for it, and what would be examined. Keep its status clear until use has been reviewed.
- Check how an adaptation affects the shared instructional functions and update the connected course records.

PART 5 ITERATE

5.3 Share examples across disciplines

Place examples where they help

The Faculty Studio can grow through examples placed within the module they help explain. A second example of a Course Blueprint belongs alongside that planning discussion, while a critique or making example belongs with the corresponding teaching decision. This structure lets faculty compare how a shared purpose takes form in different disciplines.

Explain the context

An example should explain enough context to be interpreted. Identify the course level, challenge, relevant outcomes, planning or teaching decision, excerpt, reasoning, constraints, and what is known from use. Include a difficulty or unresolved question where it affects the example's meaning.

Identify the example status

The guide can include planned examples as long as their status is clear. A proposed activity illustrates design reasoning; an implemented example can describe what was done; an evidence-informed account can explain what the available records support. These forms of contribution should remain distinguishable.

Apply after reviewing the example

Select one existing planning or teaching decision that another faculty member could learn from. Prepare a short account with an excerpt, reasoning, contextual constraints, and a question or lesson from use. Place the contribution in the relevant module rather than creating a separate guide structure for each discipline.

Carry the decision into your course records

Use the resource directory and version log to identify available examples and their release status. New contributions can become part of a later guide release after review.

Part 5 Residential Design I Example

5.3 Share examples across disciplines

Residential Design I supplies the first continuing reference across the guide. Its compact-home challenge, Blueprint, eight-week project sequence, weekly illustration, critique approach, and process records allow a planning decision to be followed across modules. The example demonstrates an application within Interior Design without defining the required content of another discipline.

Future contributions from Fashion Merchandising, Digital Communication, Studio Art, and other disciplines can show different challenges, artifacts, resources, and professional expectations. Add those examples when the course materials and the contributor's account are available and suitable for sharing.

An instructor contributing a making example might explain the question students examined, the artifact or test they used, the support provided, and how a decision was informed. That description gives another faculty member something to adapt beyond the name of the technology or the appearance of the final product.

Why these decisions matter

- A consistent example structure supports comparison while retaining constraints, adaptations, and unresolved questions.
- Confirm authorship and permission, identify the source and version, and distinguish proposed examples from implemented practice.

SEED GUIDE REFERENCE

Companion tools

The companion_tools folder supplied with this guide contains the editable Word files below. Use the templates alongside existing course records. Response areas expand as needed, and faculty may combine records when their functions remain clear.

Supplied tool	Use	Guide section
Course Blueprint template	Connect seven course planning elements.	2.1
Residential Design I worked Blueprint	Follow a completed course planning example and one alignment.	2.1 example
Weekly Studio Experience Map template	Plan the purpose, preparation, activity, support, feedback, evidence, and next step.	2.3
Residential Design I weekly map	Study the Week 5 design development planning illustration.	2.3 example

Use the files together

Begin with the Blueprint for the course-level relationships. Use a Student Journey and Project Cycle plan to organize the sequence, then use the weekly map or an existing module plan for the next teaching interval. Update connected records when a decision changes.

SEED GUIDE REFERENCE

Teaching resources and course records

Keep the following records in their normal course locations. The guide explains their functions; faculty can use existing formats that communicate the decisions clearly.

Record or resource	Main use	Guide section
Student Journey	Show challenges, milestones, feedback, and transitions across the term.	2.2
Project Cycle plan and project brief	Connect a challenge with outcomes, activities, support, evidence, assessment, and student requirements.	1.3 and 2.2
Student SEED introduction	Orient students to the process and its use in their course.	3.1
Professional Resource Map	Connect resources with learning purposes, access, preparation, and an alternative.	3.3
Critique and reflection prompts	Connect feedback with a reasoned response and subsequent action.	4.1
Rubric and assessment criteria	Make quality and evaluation expectations usable during development and review.	4.2
Process and portfolio guidance	Retain and curate relevant development and completed work.	4.3

SEED GUIDE REFERENCE

Visual reference directory

Use these visuals to introduce a relationship, revisit a planning decision, or communicate the process to students. PNG and editable SVG versions are supplied in the graphics folder.

Visual	Purpose	Placement
SEED Framework	Connect the two theoretical foundations with seven shared instructional components.	Opening reference
Faculty Design Cycle	Organize faculty planning, teaching, review, and refinement.	Opening reference
Course Blueprint	Connect the seven course planning elements.	2.1
SEED Project Cycle	Show recurring student activity around an authentic challenge.	2.2
Residential Design I Student Journey	Follow the eight-week first cycle within a 16-week reference course.	2.2 example
Weekly Studio Experience Map	Connect a teaching interval with the larger project.	2.3
Weekly Studio Rhythm	Organize preparation, studio experience, and follow-through.	2.3
Professional Resource Map	Connect available resources with learning decisions.	3.3
Critique, Reflection, and Revision	Connect feedback with interpretation, action, and another review.	4.1

SEED GUIDE REFERENCE

Edition and resource use

SEED 1.0 Faculty Studio Guide. Faculty edition. November 8 2026. Developed by Shasta Beveridge.

This edition includes nine coordinated visuals, an editable Course Blueprint and worked residential example, and an editable Weekly Studio Experience Map and worked residential example. Keep the guide and companion files together when distributing the resource package.

Keep related records aligned

When a course decision changes, update the relevant plan, brief, calendar, module, and assessment guidance. Retain the edition or date with the course materials so colleagues can identify the resources used.

Use and contribute examples

Residential Design I is the continuing reference example. New disciplinary examples can be placed within the matching modules when the course context, reasoning, and experience of use can be explained. Confirm authorship, attribution, and permission before sharing student, partner, or third-party material.

SEED GUIDE REFERENCE

Glossary

Adaptive Expertise. Flexible use of knowledge when a familiar procedure does not fully address a new situation.

Authentic challenge. A meaningful disciplinary problem, opportunity, or question with relevant users, audiences, conditions, or constraints.

Cognitive Apprenticeship. An instructional approach that makes expert reasoning available through modeling, coaching, scaffolding, articulation, reflection, and exploration.

Course Blueprint. The course-level planning record connecting purpose, intended student development, outcomes, competencies, experiences, evidence, and assessment.

Disciplinary adaptation. A change in context, activity, medium, tool, sequence, or support that is interpreted in relation to the intended instructional function.

Evidence of learning. Selected records of reasoning and performance that can be examined in relation to course outcomes and criteria.

Faculty Design Cycle. The Explore, Design, Make, Reflect, and Iterate structure used to organize faculty course planning and refinement.

Making. Creating or developing an artifact to explore, test, develop, or communicate an idea through physical or digital work.

SEED GUIDE REFERENCE

Glossary

Milestone. A meaningful point in the project where developing or completed work is available for review.

Professional competency. A disciplinary practice, skill, form of knowledge, or judgment used in relevant professional work.

Project Cycle. A connected sequence through which students address an authentic challenge, with recurring exploration, design, making, reflection, and iteration.

Scaffolding. Temporary structure or assistance that helps students undertake work and can be adjusted as their needs change.

Shared component. One of the seven intended instructional functions used as a common SEED implementation reference.

Student Journey. A view of the learning experience across the term, including challenges, milestones, support, feedback, and transitions.

Weekly Studio Experience Map. A plan for the purpose, preparation, activity, support, feedback, evidence, and next step within a teaching interval.

SEED GUIDE REFERENCE

Selected sources

The following sources introduce SEED's two primary theoretical foundations. The guide translates these ideas into faculty planning and studio teaching decisions.

Collins, A., Brown, J. S., & Newman, S. E. (1987). *Cognitive apprenticeship: Teaching the craft of reading, writing, and mathematics* (Technical Report No. 403). Center for the Study of Reading, University of Illinois at Urbana-Champaign. https://files.eric.ed.gov/fulltext/ED284181.pdf

Hatano, G., & Inagaki, K. (1984). Two courses of expertise. *Research and Clinical Center for Child Development Annual Report, 6*, 27–36. https://hdl.handle.net/2115/25206

Residential Design I examples draw on Shasta Beveridge's residential course planning materials and SEED Experience Blueprint. The guide follows an eight-week first Project Cycle within a full-semester reference course. Teaching prompts, sample assessment language, and proposed refinements are identified as illustrations for faculty adaptation.