Meet the Pathways

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Version II — June 2011
In order to embody the university’s goals of integrating the core, connecting living and learning, and practicing Jesuit values, and carry this vision into our daily work, we offer a conceptual structure to organize efforts and aim at common outcomes across all we do.

*Where did the “pathways to integration” come from?* While the six pathway names are admittedly a somewhat random choice, they emerged from conversations among dozens of faculty, staff and students who participated in retreats, lunches, workshops, meetings, committees, online exchanges and other venues since the strategic vision was established in 2005. As goal one specifies, we need to “1. Guide and engage students in discovering relationships between academic disciplines that have different methods of inquiry and different bodies of knowledge” and “2. Give faculty members more opportunities to learn about the methods other disciplines use and the problems they explore.” Toward these specific ends, the pathways help us educate each other.

*Of what use is the “pathway” metaphor?* As a tree’s components act as pathways that absorb and interact with the elements, so the six conceptual frameworks act as routes for students to internalize ideas, skills, and values, and act upon them. As a tree contributes to its environment, so our students give back through their personal, professional and civic lives. Students may take root through the core. As a tree’s roots provide stability while allowing further growth, so the core curriculum provide a base yet open up channels to allow new knowledge to be created.
What’s the point of using the pathways to integration? The ultimate goal of the pathways is to help students get beyond fragmented learning, see concrete ways to connect curricular and co-curricular experiences and make it all meaningful.

- For students: The list names six frameworks to integrate their learning across the core, within their majors and throughout their living and learning experiences.
- For faculty and staff: The list gives a variety of overarching learning objectives that different courses, co-curricular activities and learning communities can target as outcomes.

For example, students doing a science experiment can be asked to articulate how they communicated (with team members), used quantitative analysis, and took responsible action (as a citizen) based on their results, among other implications. The point is to be transparent to students about the point of their learning, and to be intentional about giving practice at making connections.

What do the pathways have to do with other campus initiatives? As a “core sample” of a live tree shows its rings of growth, so faculty and staff may prompt students to “reflective moments” at points in the learning process, for students to map out how their learning is all fitting together. With this project, we enlarge an ongoing conversation on how to integrate learning to all students, staff and faculty, and open it to you to refine the pathways themselves and use them in your own work.

Cross-section of a Fairfield Student’s Growth/Development

The mission of Fairfield University: The education of the whole person – mind, body, and spirit.

By integrating living and learning, we free our students to realize their potential, giving each the confidence, the tools, and the boldness of vision to put their gifts to work in the world. A Fairfield education is an inspiring education, and the foundation for an inspired life.
Engaging Traditions, Ancient and New

Liberal education in the Catholic and Jesuit tradition has always had, at its core, the act of retrieving the manifold traditions of human reflection – philosophical schools, religious traditions of faith and practice, historical accounts of peoples and cultures, and the oral and literary traditions that shape these in all their richness and diversity.

For an educated person, the ability to engage a tradition in its own context – indeed, to see the de facto ongoing appropriation of these traditions in the plurality of current cultural movements – is central to a credible and responsible engagement with the world as it is.

Such an engagement, however, is always ordered to a new day, and thus we are called not only to enter into the complex and critical task of mediating past and present, but to use this knowledge for the construction of fresh approaches to enduring questions, approaches that will lead to creative and accountable action in the world.

As a result of this engagement, students will

- Appreciate that there are traditions of reflection on life and meaning that are worthy of engagement today
- Gain a critical knowledge of multiple religious, philosophical, historical, cultural and literary traditions as they respond to questions of profound human significance
- Understand how these traditions come to be constructed in certain times and places, as acts of human imagination
- Appreciate our responsibility to keep these traditions alive in any contemporary moment including ours, through our own acts of imaginative construction
- Appreciate that these traditions, expressed in meaningful narratives, are both the context and object of interpretation—that we stand in a tradition as we read and think about the stories of other peoples and places
- Recognize that, consciously or unconsciously, we are always already appropriating traditions and meaningful narratives
- Realize that intellectual traditions have the power to construct knowledge and authority for self-serving interests contrary to justice, and that each of us has an obligation to develop habits of criticism to identify such distortions and correct them
- Develop a sense of responsibility to be intentional and critical about how we appropriate these stories as we craft the narrative of our personal and social identities

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Creative and Aesthetic Engagement

The following definition and learning goals were developed based on three group discussions and the 2010 AAC&U VALUE rubric on creative and critical thinking.

Creativity is a process of transformation, of taking things, whether they are physical or intellectual, and turning them into something new. As students understand expressions of art and nature, develop critical skills, and consider their role in the process, they are better positioned to engage in creative activities. Through the Core curriculum, students will be exposed to and inspired by works of others, encouraged to create their own vision and tap into their own creativity as they actively imagine and innovate (whether new ideas, inventions, works of art, etc).

Regarding creativity, Fairfield students will:

Understand:

- ideas, visual expressions, other innovations
- how to assess their own knowledge
- the value of their own creations

Value:

- other ways of thinking
- openness to the experiential
- their own voice
- imaginative thinking

Develop:

- their own personal voice

Be able to:

- recognize focus and discipline as the basis of creativity
- brainstorm effectively with others
- think laterally and not just linearly
- connect ideas in imaginative ways
- synthesize the disparate
- deal with contradictions and ambiguities
- distinguish the important from the trivial, the needle from the haystack
- be critical of their own work
- be willing to risk failure
- appreciate the value of error in the creative process
- express their voice in appropriate forms and media
- innovate

Aesthetic Engagement refers to the awareness, understanding, and judgment of the aesthetic properties of art and nature. This pathway is essential to the development of critical thinking and critical reflection, as well as interpretative and creativity skills. Additionally, aesthetic appreciation is an affective path to emotional development, and to refining ways of seeing, interpreting, and contributing to the world, making life experiences more meaningful.
Creative and Aesthetic Engagement (continued)

As students progress through the curriculum, the aesthetic engagement pathway will link activities across disciplines that encourage them to engage with others’ creations, produce their own creations, and critique their work and that of others (beyond basic value judgments of creative works, e.g., “like” “dislike”).

Regarding aesthetic engagement, Fairfield students will:

Understand:
- the nature of beauty, art, and taste
- aesthetics as ways of knowing and engaging with the world
- the value of metaphor
- canonical works and their significance

Value:
- art (various mediums) and other expressions of human experience / culture (e.g., fine arts, literary arts, performing arts)
- creation/appreciation of beauty
- exposure to new habits of mind
- elegance
- affective (sensory, emotional, and intellectual) responses to objects or phenomena
- other cultures
- imagination and creativity

Develop:
- an ability to make aesthetic judgment
- an aesthetic vocabulary

Be able to:
- appreciate and interpret works of art
- critique / make informed aesthetic judgments about expressions of art -- interpret works: analysis, understanding, critique, praise
- engage in critical reflection on art, culture, and nature
- study, create, or participate in the creative process
- think in another culture’s terms
- know how to decode non-verbal work and relate to it
- manipulate various media and express themselves non-verbally
- relate their own works to those of the canon
- relate aesthetic experiences across disciplines

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Global Citizenship

Working Definition of Global Citizenship

The impact of globalization on the United States is manifested by our changing demographics and the continued influence of our nation on the global stage. As this global shift continues, it becomes increasingly important that people are equipped to function within culturally unfamiliar environments; individuals must have the capacity to display cultural competencies at work, at home, and in civic life. Given that citizenship is juridical (rights and responsibilities), sociological (membership in a political community) and political (engagement in public life) it has become more vital that individuals recognize the social, political, legal, cultural, and ethical liabilities and implications of citizenship in this global world.

Neither globalization nor citizenship is uncontested terrain. Therefore examinations of global citizenship can provide a framework for ongoing and critical dialogue for envisioning an ethic, a commitment to social justice, the environment and the formation of skills to meet the challenges of belonging to the global community. Global citizenship encompasses identities and a sense of belonging at many levels of participation and self-realization, from the individual, to family, society, country, the world, and planet earth itself. One arena of belonging does not exclude or preclude others, even as tensions and competing interests arise among them. Global citizens have to navigate such obstacles to sustain their engagement and to work constructively through the differences their conceptions of global citizenship entail. Acknowledging the growing ethnic, cultural, racial, linguistic and religious diversity throughout the world is at the core of the commitment to global learning.

Universities guide students as they explore what diversity and globalization mean, how they are interconnected, and why it matters. In response to these global demands, universities have begun to reframe issues of how we approach diversity and multiculturalism into the rubric of global citizenship. Fairfield’s mission is to produce students whose academic, cultural, and aesthetic acumen equips them to recognize the value of others—those both similar to and different from themselves—and the importance of community building. As lifelong learners who are “morally and socially responsible,” Fairfield graduates should be capable of navigating a wide variety of unfamiliar social situations, both domestic and international. Therefore, Fairfield University’s mandate is to prepare all members of its community to reflect humbly on our privileges, to use creative means to connect with others, to seek experiences that allow for the application and expansion of knowledge gained in the classroom, and to recognize the value inherent in striving to transform society for the greater good.

Possible definitions of Pathway: [source material for definition in brackets]

Students will develop multiple perspectives on the world’s challenges and opportunities; begin wrestling with ethical implications of differential privilege and power….Students will encounter complex questions regarding the impact of privilege and oppression on others, will connect scholarly knowledge with their choices and action; will foster civic intercultural outlooks and use complex reasoning to examine duties, rights, and the ethical implications of action. [AAC&U]

Students will develop multiple perspectives and knowledge of the world, appreciate the social, institutional and political forces shaping it and will become sensitive to and respectful of different world views. This will enable them to develop moral and intellectual integrity, be
Global Citizenship (continued)

compassionate, commit to using their skills to maintain or improve the lives of others, and maintain a thirst for social justice. This is an obligation of all educated and mature human beings. [Fairfield mission statement]

Learning goals: This reflects the scholarship of Hans Schattle and the FPLC developmental model for Global Citizenship. Suggested outcomes adapted from AAC&U’s “Assessing Global Learning: Matching Good Intentions with Good Practices” by Caryn McTighe Musil.

Cosmopolitan Scholarly Development—intellectual foundations necessary for global, cosmopolitan outlook

GOALS
a) Comprehend the history of cosmopolitanism, its vicissitudes and disputed ideals, from the time of the Cynics to the present.
b) Become familiar with connections between academic study and the “real world” implications of their study
c) Recognize that there are a wide variety of disciplines that examine globalization
d) Describe the history and significance of global citizenship, including ways it has been contested within disciplines.
e) Understand the connection between global social forces and local outcomes, as in the case of the silk route, Christian mission activity, or modern globalization
f) Critically evaluate image, message, identity, and distortion in various forms of media.

OBJECTIVES
a) Students have a deeper knowledge of the historical, political, scientific, cultural, and socioeconomic interconnections between the United States and the rest of the world
b) Students can identify some of the processes through which civilizations, nations, or people are defined historically and in the present
c) Students can describe some of the contested assumptions and intellectual debates within global studies that are relevant to their major
d) Students embrace the complexities in the study of foreign countries
e) Students can pose critical questions about power relations as they investigate the dynamics of global transactions as applied to a social problem important to their field

Cultural Awareness—uses self-reflection and cultural humility (an understanding that one’s life experiences are not definitive of the life experiences of others and that becoming culturally aware is a lifelong process)

GOALS
a) Develop the ability to interpret experience from multiple perspectives, and use a wide repertoire of verbal and nonverbal cultural communication practices
b) Understand your own cultural rules and biases, and elements important to another culture in relation to its history, practices and values
Global Citizenship (continued)

c) Develop an attitude of curiosity about, and humility regarding, people of other nations, backgrounds or personality styles, and their different cultures and values
d) Become familiar with language(s) outside of one’s native language
e) See local horizons of meaning through religion, cultural values, and local memory

OBJECTIVES
a) Students are able to interpret aspects of other cultures and countries with greater sophistication and accuracy
b) Students are able to traverse cultural borders with greater skill and recognize that discomfort can exist even when developing these skills
c) Students are able to describe their own culture with greater knowledge and awareness
d) Students are able to view a single issue from multiple perspectives, and they are more comfortable with complexity and ambiguity
e) Students are able to work with others who are different from them
f) Students are more curious about others’ beliefs.

Social Participation—transmits and acts on knowledge to effect change

GOALS
a) Understand that comfort with social interactions is integral for successful socio-political participation at home and abroad
b) Participate in concrete action that positively benefits others
c) Develop the ability to work collaboratively in groups with diverse membership
d) Understand the limitations of actions that are exogenous to a culture, and the dangers of poorly effected action for this and future generations, irrespective of good intentions

OBJECTIVES
a) Students develop stronger skills to engage in deliberative dialogue, even in the face of conflict
b) Students are more adept at establishing democratic partnerships with people or groups that do not begin sharing power equally
c) Students develop an understanding of systemic constraints on human potential
d) Students become familiar with community-based efforts to articulate principles of justice, expand opportunity, and redress inequities
e) Students understand that cultural values supporting unequal power may be changed at peril to both the subordinate person and the overall social contract
f) Students understand that many other cultures do not accept their equal participation as the ideas of universalism are not universal

Reciprocity and Responsibility—identifies ethical implications of action and develops solidarity

GOALS
a) Understand the privilege and responsibility implicit in memberships in multiple communities
b) Recognize the consequences of public policy and dominant ideologies on vulnerable communities in the United States and in other countries
c) See the value in developing relationships with communities different from one’s own
Global Citizenship (continued)

d) Understand that behavior has societal and material value as well as political consequences
e) Understand that autochthonous cultures have aesthetic and religious sensibilities encompassing hierarchies grounded in historical roots and meanings
f) Comprehend that ethical cues and behavioral codes are not visible to the casual observer, but nonetheless are deeply felt and hurtful if violated

OBJECTIVES

a) Students acquire a heightened sense of global interconnections and interdependencies
b) Students are more likely to believe their individual intervention in a global social problem is both possible and consequential, but problematic with potentially unforeseeable consequences
c) Students can describe a social problem requiring collective remedies that transcend national borders or a collectively determined remedy that focuses on a single country
d) Students are able to identify some of the ethical questions that underlie an interaction between countries and also between communities.
e) Students develop greater comfort within their interactions, whether they be professional or personal, formal or informal, even when faced with cultural difference
f) Students identify obligations to people situated both inside and outside their own national borders

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Quantitative Reasoning

We examined several quantitative reasoning initiatives from different institutions, and drawing heavily from the 2010 AAC&U Learning Goal Rubrics, Carleton College’s Quantitative Inquiry, Reasoning, and Knowledge Initiative (QuIRK) and from the guidelines of the Mathematical Association of America (MAA), we offer the following:

**Definition of Quantitative Reasoning**

Quantitative reasoning is the application of mathematical concepts and skills to solve real-world problems and the ability to make reasoned arguments supported by quantitative evidence. In order to perform effectively as professionals and citizens, students must become competent in reading, using, interpreting and presenting quantitative data; in understanding the power and limitations of quantitative reasoning; and in applying basic quantitative skills to support arguments and solve real-life problems.

**Goals and Outcomes**

**Goal 1. Thinks quantitatively (i.e., develops habit of mind in recognizing and understanding the relevance and value of the application of mathematical concepts and skills to solve real-world problems)**

Outcomes:
1. States questions and issues under consideration in numerical terms
2. Identifies appropriate quantitative or numerical evidence to address questions and issues
3. Investigates questions by selecting appropriate quantitative, statistical, and computational methods
4. Creates logical arguments using quantitative reasoning
5. Critiques logical arguments using quantitative reasoning

**Goal 2. Implements quantitative reasoning competently (i.e., can use mathematical concepts and skills to solve real-world problems and can gather numerical evidence to support claims)**

Outcomes:
1. Generates, collects, or accesses appropriate data and numerical evidence
2. Uses appropriate mathematical, computational, and statistical models and methods
3. Focuses analysis appropriately on relevant data
4. Accurately represents numerical information symbolically, visually, and verbally
Quantitative Reasoning (continued)

Goal 3. Interprets and evaluates data and quantitative arguments thoughtfully (i.e., can make sense of the data and results)

Outcomes:
1. Interprets numerical data from graphs, tables, and formulas
2. Assesses the limitations of the methods employed in gathering the data (e.g. biases; objectivity of the measures; how much the measures reflects what it purports to reflect)
3. Draws appropriate inferences from numerical data (e.g., considers whether results can be generalized; questions the source of the data; understands limitations of small sample size)
4. Recognizes how data can be presented in misleading ways (e.g., graphs that exaggerate or minimize differences; correlational relationship presented as causation)
5. Uses results and interpretations to address questions and issues under consideration
6. Estimates and checks answers to numerical problems in order to determine reasonableness, identify alternatives, and select optimal method

Goal 4. Communicates results of quantitative analysis and interpretations effectively

Outcomes:
1. Understands and creates sophisticated arguments supported by quantitative evidence
2. Presents and reports quantitative data and arguments clearly and effectively through appropriate use of tables, figures, and written or spoken language
3. Summarizes conclusions correctly with appropriate terminology

Note: Students need practice thinking quantitatively and understanding quantitative information. They also need practice in making arguments supported by quantitative evidence and in interpreting and communicating such information. Instructors need to model these things in core, major, and elective courses as appropriate to their discipline.

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The uses of rhetoric and reflection have been core intellectual activities of the humanities since the classical period and have been at the heart of a Jesuit education from the founding of the Order in 1540. Rhetorical training was the means to the development of eloquence, the chief aim of the liberal arts, and a central focus of the Jesuit curriculum, the Ratio Studiorum. Reflection is a key principle of another primary educational document, the Spiritual Exercises. As habits of mind, rhetorical action and reflection remain central to the mission of Fairfield’s undergraduate Core Curriculum today.

Some Definitions of Rhetoric:

The scope and focus of rhetoric and rhetorical education has widened considerably since the classical period from Quintilian’s “the good man, speaking well” to more modern definitions, such as:

“Rhetoric is the art, practice and study of human communication.” (Andrea Lunsford)

“Rhetoric is the study of the means by which we influence the thinking and action of others by ‘the strategic use of symbols’.” (Douglas Ehninger)

“Rhetoric is the process of using language to organize experience and communicate it to others. It is also the study of how people use language to organize and communicate experience.” (C H Knoblauch)

The Rhetoric and Reflection Pathway, then, focuses on developing students’ understanding and use of language for specific academic, intellectual, and social purposes, as well as for developing the habit of mindful reflection. Students will practice a variety of strategies to assist in reading and writing in different rhetorical situations (across disciplines, genres, cultures, and modes), and learn to use all the language arts for college-level inquiry, critical thinking, argumentation, and social action.

Possible educational aims and learning objectives for Rhetoric and Reflection across the curriculum:

Rhetorical Knowledge

Students Across the Core Will:

- Understand that reading and writing are the means for doing intellectual work, rather than just a means of demonstrating knowledge.

- Understand that all reading and writing is rhetorically situated. Students will come to understand that different communities, including academic disciplines, use discourse for different purposes, and therefore, develop different genres to meet those purposes.

- Appreciate the cultural contexts and ethical implications of oral and written texts.
Rhetoric and Reflection (continued)

- Understand the collaborative and social nature of writing and the benefits and responsibilities of collaborative writing.
- Be able to analyze the different rhetorical demands of college assignments in different courses/fields.

Applied Knowledge: Writing, Reading, and Researching Processes

Students Across the Core Will:

- Practice writing as intellectual work through the following: 1) invention activities (writing as discovery), 2) drafting and revision (writing as learning and critical thinking), and 3) editing for publication, presentation, or performance (writing to communicate).
- Practice writing and researching as requiring multiple tasks, steps, or stages which include generating useful questions, gathering, evaluating, and synthesizing information from appropriate sources, developing substantive claims, logical structures, and effective evidence.
- Deploy the full resources of language to read and write expository, imaginative, and/or persuasive prose accurately and effectively for academic, social, and civic work.
- Develop a full set of reading strategies to be able to read for information and insight by reading both empathically and critically.
- Practice composing and making effective oral presentations. Practice effective listening skills.
- Practice composing, reading and presenting in virtual environments.

Applied Knowledge: Reflection

Students Across the Core Will:

- Learn to use oral and written language for regular and sustained reflection.

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Scientific Reasoning

Students will engage with the beauty of the scientific method and its application to a variety of real-world problems, gaining an appreciation for the power and importance of scientific knowledge and analysis in daily life.

I. Science as a Pathway for Knowing the World – Humans have developed an extraordinary understanding of the world in which we live by careful observation of the regular patterns exhibited by the natural world. Using both qualitative and quantitative reasoning, science asks carefully constructed questions about entities and interactions between them in the natural world. This questioning is done in the context of models and representations of the natural world that have developed over time. If the answers to a particular question are found to be robust (repeatable by independent researchers) and are not in agreement with the prevailing model, then the model or representation will change. The power and flexibility of the scientific way of thinking is its ability to continuously evaluate new data and adapt accordingly. Students must learn about the world and then subject that knowledge to continuing scrutiny and critique.

II. Science as a Pathway to Interacting with the World – Science is, at its heart, an experiment-driven exercise. No ‘great idea’ stands as truth without questions and the questions emerge from measured observation of the world. Gravity and evolution are bedrock theories whose predictive fecundity are robust, but even they are susceptible to modification as new data is collected on the nature of black holes and best description for phylogenetic diagrams, for example. Therefore, it is critical for students to be given the opportunity to collect real data, via any direct or indirect sensory system, and struggle to make meaning from that data.

III. Science as a Pathway to a Better World – The scientific way of knowing the world is important in and of itself. It stands in contrast to ways of knowing the emphasize received wisdom or emotive response. But, as a human endeavor, it is obliged to also serve as a tool for bettering the world. Civilization as we know it is built upon a scientific knowledge of mechanical systems and the flow of energy. Yet, at the same time, social and ecological damage at planetary scales has been wrought by the very same knowledge. Students must wrestle with questions regarding the role of science in creating a better world for some people, places, and species, but at the same time compromising living standards and conditions for others.

Student learning outcomes for the scientific reasoning category are as follows:

TO KNOW

- Students will learn the principle elements of the scientific approach to knowledge building: gathering data, evaluating data, generating hypotheses, designing experiments, connecting to theory. A key aspect of this understanding is recognition of how these elements work in a cyclical fashion and often in intimately connected ways.
Scientific Reasoning (continued)

– Students will understand the principle of falsifiability and appreciate the sense of contingency as a fundamental aspect of science.

TO DO

– Students will collect, evaluate, and interpret real data. This process of collecting and interpreting data generates ‘cross talk’ that leads to new understandings of what is true.

– Students will employ inductive and deductive reasoning skills to interrogate and evaluate data.

TO CARE ABOUT

– Students will appreciate the creative aspect/design process fundamental to scientific progress. Key to this is the ability of science to extend our senses, enabling the design of new ideas so that questions can be posed and answered.

– Students will develop a critical approach to examining scientific claims, and learn to differentiate between good science, pseudoscience, and non-science.

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This project was funded in part by a grant from the Davis Educational Foundation, which was established by Stanton and Elisabeth Davis after Mr. Davis’ retirement as chairman of Shaw’s Supermarket, Inc.