

**October 16, 2006**

**REPORT TO THE ACADEMIC SENATE FROM THE CORE REVIEW  
COMMITTEE CONCERNING DIVISIONAL LEARNING AIMS**

In the Academic Senate's charge to the Core Review Committee, we were asked to determine if there were particular learning aims that applied to each academic division within the core, i.e. to the natural sciences, the social sciences, and the humanities. During the fall of 2005 representatives from the Core review Committee met with faculty in each division to discuss aims appropriate to that division. In the case of the social sciences and the natural sciences this procedure was rather straight-forward. After meeting with the faculty, the committee generated a list of learning aims, distributed the list of comments and responses, and modified the aims in response to feedback. These aims were included in the last report from the committee to the Academic Senate. They were discussed at the Senate, and some additions were proposed. Most notable was a concern that some reference to the relation between faith and reason be a part of the natural science aims.

The work on the humanities learning aims was a more complex process. This is in part because the humanities requirements in the core are more department and course specific than in the other two divisions and in part because humanities departments have responsibility for a much larger proportion of the core than the other two divisions. In addition to conducting open meetings with humanities faculty, the chair of the Core Review Committee met with the humanities chairs at a meeting of the Steering Committee of the Center for the Humanities to discuss the learning aims and to encourage the humanities departments to consider the contribution that humanities courses could make to each of the nine undergraduate learning aims which had been approved by the Senate for the core as a whole. As a result of that meeting, the humanities chairs drafted a memo to the Core Review Committee. The committee used that document and the result of faculty discussions to draft the proposed learning aims for the humanities.

Aims for all three divisions were distributed to the arts and sciences chairs prior to their September meeting. The aims were discussed at that meeting, both in general with all chairs participating, and in sub-groups by division. The committee made further modifications to the aims as a result of those discussions.

There are several things that the committee kept in mind in the development of these learning aims. We think it is useful to keep these issues in mind throughout the process of discussing and adopting the aims. First, the committee has taken these "divisions" from the current Catalogue description of the Core: "A liberal arts education requires that students take courses in the humanities, natural sciences, social sciences, and mathematical sciences." These are historically contingent categories. They are also used at Loyola for non-curricular ends (e.g., to divide up faculty representatives to governance bodies). Some faculty may wish to propose radically different divisions – and therefore radically different divisional learning aims. The committee would welcome any concrete

proposals, but for now the committee is focused on the Senate charge, which presumes existing divisions.

Second, there are aims that transcend divisional boundaries, aims that properly belong to every course in the core, or, indeed, to every course at the college. These include many of the aims that come under the headings of Intellectual Excellence, Critical Understanding, and, to a certain extent, Eloquentia Perfecta. For example, every course at the college should have as one of its aims helping our students to obtain the ability to use speech and writing effectively, logically, gracefully, persuasively and responsibly. Insofar as divisional aims are related to such common aims, they specify how those common aims are further delimited in that division. The Core Review Committee has taken the Senate charge asking that divisional aims be “derived from” core aims in a broad sense (as streams derive in diverse ways from rivers [see the Oxford English Dictionary on de-river]) rather than in a narrower sense (e.g. where “to derive” means “to infer from” or “to deduce from”). This is particularly true of the natural science aims, which provide additional detail of the subdivisions of intellectual excellence and critical thinking addressed by core mathematical and natural science courses.

Third, it will be important at some point to ask how these divisional learning aims will be used. The Senate has asked the Core Review Committee to make recommendations for how to engage in “ongoing review of the core”. The Committee has yet to discuss part of its charge among each other, or with faculty. However, it seems plausible that the faculty responsible for ongoing review will use these divisional learning aims to determine which core courses are eventually “counted as” core courses in the different divisions. This in all likelihood would happen differently for different divisions. The natural sciences and social sciences currently have a distributional requirement. In the future, it would make sense to ask how any such natural science or social science core course addresses which of the attached core aims -- although the Committee has no position on whether every core course should include each of the attached aims, or some subset. The humanities core courses are often not distributional; they require specific courses (EN 101, HS 101, ML 103/104, PL 201, TH 201, WR 100). Also, a much larger number of courses are assigned to humanities departments than to the other divisions. Of the eighteen courses that comprise the average undergraduate core, thirteen belong to the humanities, broadly defined. So, taken as a whole, the humanities departments must assume a much greater responsibility for addressing the core learning aims than the other divisions. It should not then surprise us if the learning aims in the humanities division are broader and more comprehensive than those of the other two divisions. The Committee doubts that every humanities course will fill every one of the learning aims described for the humanities “as a whole”. Indeed, we have explicitly stated that this is contrary to our intent. But the issue of how these humanities learning aims apply to humanities core courses will be on the future agenda of ongoing review of the core, rather than the current agenda.

## **SOCIAL SCIENCE LEARNING AIMS**

The social sciences aim to provide a framework for understanding ourselves and the interrelations between other individuals, groups, organizations, societies, governments, and cultures. The study of the Social Sciences is a blend of practical, scientific thinking and awe-filled wonder at the intricacies and mysteries of humanity. It teaches respect for humankind as well as humility in the face of that which we do not yet understand. In addition to understanding the historical and theoretical foundations of the social sciences, our students will grasp the dynamic and evolving nature of the discipline. Promoting life long learning and service as leaders requires that students understand the methods of scientific and scholarly inquiry in the Social Sciences and how these methods are applied to advance our understanding in these fields. Our students will understand the influence of society and culture on personality, individual differences, and performance. Similarly, our students will appreciate the impact their actions may have on others and society as they prepare to lead, learn, serve, and address social justice issues in a diverse and changing world. In addition, a Loyola student should be able to discern sound and valid arguments that he/she and others may put forth. At a minimum, a Loyola student who completes the Social Science portion of the Core Curriculum should be able to think critically and independently about him or herself, other individuals, groups, organizations, societies, governments, and cultures of the world and the relationships between and among these entities, within the context of at least one of the social science disciplines.

1. Students will develop their curiosity about the social world and develop a life long interest in understanding how individuals are shaped by society and how they shape society.
2. Students will explore the central ideas that form the foundation for modern social science. They will understand and appreciate historical, cultural, political, economic, global, and moral perspectives (with an emphasis on issues related to social justice and diversity) and how these perspectives have influenced the understanding of human behavior and action in social contexts.
3. Students understand the inquiry processes that support knowledge formation in the social sciences including: methods, limitations, how questions are framed, how data are acquired, how arguments are constructed, and conclusions reached.
4. Students will learn the power of social science methods, the use of quantitative and qualitative methods and reasoning, and the various ways these methods are integrated.

## NATURAL AND MATHEMATICAL SCIENCES LEARNING AIMS

The sciences, especially as embedded in Western cultures, have provided an extremely useful and successful framework for us to understand ourselves and our environment. An understanding of humanity's relationship to the natural world is crucial for our students as we look towards the future. Our students need to gain some understanding of the major ideas and theories of science as well as the methodologies of scientific inquiry in order to be able to address important questions for themselves as individuals and citizens. Our students need to become critical consumers of scientific information of all kinds that is purveyed through various media so that, at a minimum, they can discern sound and valid arguments. In our increasingly interconnected and dependent world, this is crucial for personal and public decision-making that will bear on the future of life on our planet.

The sciences, through their divisional meetings and discussion with the chairs have developed learning aims in four areas:

1. Students develop their innate curiosity about the natural world and take a life-long interest in science news and advancements.
2. Students explore the one or more of the central ideas that form the foundation for modern science at a greater depth than presented in high school.
3. Students understand the process of science - its methodology, how questions are framed, how data are acquired, how arguments are constructed and conclusions reached. In this context, students should learn what science is *not*, have the ability to recognize and reject pseudoscientific claims, and have the ability to recognize when conclusions are drawn that overreach or transcend the limits of scientific materialism. Students also should understand the relationship between science and technology and how the results of scientific discovery can be applied to the needs of society. Because the process of science is intrinsically experiential, every Loyola student should have an opportunity to have success with the experimental method.
4. Students learn to reason mathematically, and to think critically and analytically through quantitative analysis, symbolic logic, and mathematical/statistical methods. Because of the close interrelationship between science and math, in each science course in the core students will achieve a better understanding of the power of mathematical and statistical tools used in the particular discipline.

Faculty at the divisional meetings supported the idea that courses in the natural and physical sciences in the Loyola core should be designed so that at a minimum each course should seek to engage students with topics that interest them, and teach one or more of the central foundational ideas on which science is built. In addition, because of the close interrelationship between science and math, all science courses in the core should include mathematical, quantitative and/or statistical analysis and interpretation as an important component of the course.

## HUMANITIES LEARNING AIMS

The following learning aims follow the format of the Undergraduate Learning Aims. The Core Review Committee, in endorsing the Undergraduate Learning Aims as the aims of the core, has consistently taken the position that these aims, while applicable to the core as a whole, were not applicable to each and every course within the core. We argued that each of the seventeen or more courses in the core would address a sub-set of these aims, but that the overall result (the core gestalt, if you will) would address them all. The same reasoning applies to this list of humanities learning aims. Individual humanities courses will address a subset of the aims, but a student completing the humanities core will find all of the aims addressed in the course of her undergraduate core education.

1. Students will advance in the formation of intellectual excellence, conceived through the cultivation of: a perspective and appreciation for the past; the skills of reading and analyzing arguments; the ability to lodge, probe and respond to rational arguments; the analysis, weighing and marshalling of evidence; the manifestation of appropriate degrees of skepticism and consent and the practical wisdom needed to order all of these skills and abilities toward a desired and defensible end.
2. Students will write in many different forms such as analytical papers on tests, research papers using primary and secondary source material to construct an argument, creative writing that directly allows students to express their own voices. Students learn that they must meet a standard of eloquence before their ideas can be taken seriously.
3. Students learn the nature of questions the various disciplines in the humanities raise and are challenged to voice their opinions in class. Participation in class discussions develops in them better habits of presenting ideas with clarity and defending arguments with conviction.
4. Students learn the place that the appreciation of beauty holds within the humanist tradition, develop an understanding of the many definitions of beauty, and grow both in critical appreciation of beauty and in the ability to articulate the ground of that appreciation.
5. Students come to understand the widespread incompatibility of many notions of leadership, and to appreciate how those diverse notions arise from and require particular social and political arrangements.
6. Students enter into the ongoing discussion of the relation of the college to the specific beliefs and practices of the Society of Jesus and Catholicism more generally.
7. Students think about their own culture and learn, through acquiring knowledge about cultures other than their own, to understand and value the diversity of human experience.
8. Students come to an awareness of the great moral issues of our time (e.g. the value of human life, poverty, racism, genocide, war and peace, religious tolerance and

intolerance, the defense of human rights, the environmental impact of human activity) and an understanding of the complexity of thought and opinion that attends these issues.

9. In all of the above aims, students are expected to ask and answer questions about God, about justice, and about civic good. They are expected to evaluate information so as to judge its veracity in an informed fashion. Such expectations promote discussions about individuals and their communities and such discussions assist students in living a more examined life.