

**University of Washington Bothell**  
**Interdisciplinary Arts and Sciences Program**  
**May 2008 Review Committee Report**

## Committee charge and process

As a part of its decadal review of University degree programs, the University of Washington Graduate School formed a committee of five academic faculty to review the programs offered by the Interdisciplinary Arts and Science Program<sup>1</sup> (IAS) at the University of Washington's Bothell campus (UWB). The committee included three faculty members from the University of Washington's Seattle campus and two faculty members from other universities:

**Stephen L. Esquith**, Dean of the Residential College of Arts and Humanities, *Michigan State University*

**James W. Harrington**, Professor of Geography, *University of Washington*

**Carolyn Haynes**, Professor of Women Studies and American Studies and Director of the Honors and Scholars Program in the School of Interdisciplinary Studies, *Miami University of Ohio*

**LuAnne Thompson**, Associate Professor of Oceanography, *University of Washington*

**Paul Waddell**, Professor of Public Affairs and of Urban Planning, *University of Washington*.

Professor Harrington chaired the committee.

At the end of March, the committee received the Program's self-study document and copies of background materials. In mid-April, the committee received a formal charge and a briefing from the Associate Dean of the Graduate School. In late April, the committee chair met with the chairs of two other UW-Bothell program review committees, the Chancellor and Vice-Chancellor of UW-Bothell, and the Associate Dean of the Graduate School.

The committee met in person from Sunday afternoon 4 May through Tuesday late afternoon 6 May, spending most of 5-6 May with faculty, administrators, students, and staff members at UW-Bothell. (The agenda is attached as an appendix). We outlined a report on Tuesday late afternoon, and have worked since then to draft and finalize this report.

The 16 April charge letter was extremely detailed, including 29 specific questions. We have chosen not to answer these question by question, but to organize this report by assessing:

- IAS Program strengths
- Challenges faced by IAS
- Overall recommendations
- Recommendations regarding individual degree programs

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<sup>1</sup> Note that "program" must be used in two very distinct ways in this report. The IAS Program is the name of the organizational unit that offers three degree programs. We will refer to the organizational unit as "IAS" or the "Program" and the curricula leading to the different degrees as "programs." One program, the Bachelor of Arts in Interdisciplinary Studies, has six "transcripted degree options."

- Conclusions

In the conclusion we respond to the specific request of the charge, that the committee recommend whether each degree program should continue and when each program should next undergo external review.

## IAS Program strengths

The self study, supporting materials, and the committee's two days at UWB lead us to recognize many strengths of the Program, which should be protected as the Program grows and changes.

- *Faculty Commitment to Interdisciplinarity:* The Interdisciplinary Arts & Science Program at University of Washington Bothell features a creative and energetic faculty who is committed to the Program's interdisciplinary, experiential and multicultural emphases. Faculty members have maintained this commitment in the midst of rapid Program expansion and change. Since 1990, the Program has grown from 103 to 499 students, two degree options to six, and 12 faculty members to 37.
- *Faculty Commitment to Student Learning:* IAS faculty members are devoted to meeting the diverse needs of their students, fostering close faculty-student relationships and promoting student engagement through active learning pedagogies. IAS instructors regularly adopt innovative and active learning pedagogical approaches, including service, community-based, and experiential learning, inquiry-based learning, and collaborative learning. Not only did the students laud their learning experiences and access to faculty in comments to the review committee members who visited classes, but the faculty has also received external validation for their efforts. IAS faculty members have won seven teaching awards, and at least seven have partnered with students on research projects as part of a collaborative initiative with the Carnegie Foundation. At least four faculty have successfully published "Scholarship of Teaching and Learning" (SoTL) articles, and at least four articles co-authored by faculty and students have been published since 2002.
- *Small Class Sizes and Student Mentoring:* The most commonly heard comment from students in the interviews with team members about their experience in the IAS programs is that they really appreciate the small class sizes, and the availability and quality of faculty mentoring. They also indicated that the environment is welcoming and personalized and is conducive to their development. Faculty appear to care about students' differing life situations and needs.
- *Assessment of Student Learning:* IAS has articulated four key competencies for student learning and developed a robust assessment plan that includes both direct and indirect methods. In a university-wide survey, IAS students reported greater satisfaction than other UW Bothell students in key areas, including their capacity for writing, speaking, analysis, problem-solving and diversity. Similar findings were evident in students' responses on the National Survey of Student Engagement. In addition, students are required to submit portfolios that demonstrate learning in four major areas. One competency area is assessed each year by a rotating set of faculty members. Portfolio review is linked to a larger program-wide assessment effort which includes focus groups with seniors, in-house surveys, and student evaluation of courses. Annual assessment

reports are distributed widely and contain concrete suggestions for improving the way students are taught.

- *Participatory Governance:* Faculty praised the Program's transparent, participatory, inclusive and self-reflective governance structure and culture. Despite the fact that there are over 35 instructors, the IAS Program features an unusually pronounced culture of democratic decision-making. During interviews with review team members, most faculty members at all levels reported that they feel a sense of belonging and generally feel that their voice is heard in meetings and decision-making processes. Academic support staff also noted that they feel included in curriculum development and other relevant processes.
- *Student Leadership (Project on Interdisciplinary Pedagogy; Student Council):* Through its ingenious Project on Interdisciplinary Pedagogy (PIP) and its new Student Council, the IAS Program has developed thoughtful ways of simultaneously providing leadership and learning opportunities for graduate and undergraduate students and meeting key programmatic needs. PIP enables graduate students from the UW Seattle campus to receive close mentoring from an IAS faculty member, participate in regular meetings focusing on interdisciplinary pedagogy, and teach or team teach an interdisciplinary course in the IAS Program.

Unlike most other student councils which typically serve as community-building and social programming bodies, the IAS Student Council provides a vehicle for students to identify needs or areas for improvement within the (undergraduate) program, conduct inquiries to address the need, and implement their solutions. Although few in number, the members of the Council have addressed a variety of issues, including revising online course descriptions, developing a peer mentoring opportunity, and initiating diversity programming.

- *Student Engagement:* IAS students that we met in several classes and small discussion groups expressed a high degree of enthusiasm for and commitment to the Program and its mission. Although UWB is a commuter campus, the IAS students nevertheless have formed a close knit community and are able to speak thoughtfully about the value of their degrees, express praise for the faculty members and can readily articulate the merits of an interdisciplinary education.
- *Student Mix:* An important strength of IAS is the mixture of traditional and non-traditional students. They seem to be learning from one another in the classroom. They also have somewhat different needs. The non-traditional students with family and career obligations depend upon evening scheduling, while the younger traditional students may have more flexibility. Finding a way to keep them in contact with one another as the IAS Program expands and takes more first-year and second-year students will be important for maintaining a vital part of the IAS esprit de corps.

## Challenges faced by IAS

The rapid growth and continuous development of the Program and campus, and of the programs within IAS, presents the Program with several challenges. We draw attention to these because the campus is considering changes of many sorts: these challenges should be addressed when planning changes.

- *Common Foundational Knowledge and Analytical Tools:* Many students enrolled in IAS undergraduate programs transferred from community colleges, beginning IAS in their junior year. Others are returning after years away from formal educational settings, and still others are traditionally aged students who have just graduated from high school. This diversity in the student population has led to a strategy of course offerings that provide content in most courses that does not build on pre-requisites. During our in-class visits, a few students indicated a degree of redundancy in content among courses. This may be related to the challenge of having courses that generally lack prerequisites. Even with the advent of a full four-year cohort of students, there will continue to be a significant proportion of the students who begin in IAS in their junior year, so this concern is likely to persist. A clear challenge is to find ways, under the constraints of the student population and the high rate of transfers from community colleges, to build more foundational skills into the program, and to support a deepening of the theoretical content and analytical tools within IAS undergraduate programs.
- *Accommodating Growth:* UWB has been growing rapidly, and expects to continue to do so in the immediate future. As many as 250 new students every year could be added over next decade. IAS has had a pattern of proliferating courses, curricular clusters, and degree programs as a way of accommodating this growth. This likely will place a large demand on faculty time and energy.
- *Increasing Ethnic Diversity:* The State of Washington is less ethnically diverse than the nation as a whole, and North King County and Snohomish County are particularly low in ethnic diversity. According to the U.S. Census Bureau 2003 American Community Survey, persons reporting themselves as single-race white population comprise 76% of the U.S. population, while the figure for the State of Washington is 81%. But the pattern is more acute for single-race black population, with a national profile containing 12% black population, and the State of Washington only 3%, according to the 2003 ACS. While it is clear that the students in IAS represent diverse life experiences and ages, the student and faculty population under-represent ethnic diversity. Increasing diversity of the student and faculty remains a significant and important challenge, and one that would be well worth additional efforts to improve in order to enrich the learning experiences for all students.
- *Workload Management:* Due to the Program's unusual growth rate, its focus on student learning and assessment, and its highly participatory, democratic governance model, IAS faculty face a demanding workload that makes research productivity challenging. To meet this challenge, the Program has taken two major steps---the reduction of the teaching load from six to five and the development of a proposal for a "points system" that more clearly delineates and credits various types of work and effort (e.g., advisement, independent study, service, class size). However, some faculty still complained in interviews of the excessive service and teaching demands of their

positions. Of particular concern is that the heavy workloads have not been moderated for junior faculty. One possible reason for this is that the workloads are so high across the board, that there is little capacity among senior faculty to take additional workload in order to reduce workloads for junior faculty.

- *Research Expectations and Support:* The University of Washington is a major research university, in which a high degree of productivity in research is expected from faculty. IAS has considerable flexibility to define the nature of research that it values from faculty, and to set expectations for faculty through the merit process and the promotion and tenure process. The review committee heard generally positive statements from senior faculty, including members that had just recently been promoted, who described the guidance they had received throughout the process as clear. However, the experiences reported by more recently hired junior faculty suggested that they may have received more mixed signals regarding research expectations. Some indicated a need for access to mentors in their fields. As noted above, it was also clear that the heavy workloads in teaching and program building were limiting time available for research.
- *Facility Requirements of New programs:* New degree options, such as the Bachelor of Science in Environmental Science and the Master of Arts in Cultural Studies, have been approved; yet, some of the permanent facilities that are necessary for a high quality learning experience for students in these majors have not been secured (e.g., lab space, studio and performance space).
- *Potential Under-Investment in Existing programs:* Many new degree options, such as Interdisciplinary Arts, Law and Political Economy, Media and Communication Studies, and Creative Writing, are being considered for development in the near future. However, some existing degree options seem to be lacking critical human and other resources needed for high quality learning experiences. It is not clear what the best schedule would be for adding new options or majors when some existing options or majors are not yet fully functioning.
- *Organizational Challenges:* As the faculty size has expanded, perspectives on the Program's mission, its future direction, and its interdisciplinary focus have diversified. Some faculty, for example, advocate the creation of separate disciplinary courses and departments within a school or college (see the "2007 Structural Reorganization Document"), while other faculty advance a more integrated model in which disciplinary expertise is cultivated within the context of an overarching interdisciplinary curriculum and unit. As a result of these divergent conceptualizations of interdisciplinary education, there exists among the faculty differing opinions on the Program's organizational structure and strategic priorities.

## Overall recommendations

The review committee offers the following recommendations to build on the strengths and address the challenges outlined above.

### *Clarifying “Interdisciplinarity”*

Although the mission statement of the IAS Program is clearly articulated, the review team noted that faculty and students did not have a shared understanding of “interdisciplinarity” and how it is operationalized across the curriculum. Many faculty members stressed that the definition and process of interdisciplinary learning necessarily vary depending on the context. While the review team agrees that some variation in understanding is normal and that it would be stultifying to lock the Program into one specific definition or rigid process of learning, it is important to cultivate a shared vocabulary relating to interdisciplinarity and common understanding of the aims and outcomes of interdisciplinary student learning in order to maintain a cohesive, well integrated community of faculty and students.

The shared understanding of how students learn, what is interdisciplinarity, and what are the desired traits and outcomes of a interdisciplinary-studies graduate can serve to guide strategic planning, curricular and program development as well as prioritization of human and financial resources. For example, if the curriculum is guided by Veronica Boix-Mansilla’s framework for interdisciplinary understanding which promotes rigorous engagement with disciplines, interdisciplinary understanding achieved through integration, and critical reflection, then IAS may need to make concerted efforts to ensure that in-depth disciplinary knowledge is cultivated in students prior to moving students toward integrative understanding. This framework may dictate the incorporation of greater levels of concentrated disciplinary study within disciplinary or cross-disciplinary contexts than is currently available in the IAS undergraduate programs. If, on the other hand, the curriculum is guided by a more integrated learning organization theory (such as that advanced by Margaret Wheatley), then a premium would be placed on developing a seamless learning community and the advancement of process-oriented outcomes such as collaboration, intercultural understanding, and critical thinking and inquiry as well as cognitive and affective development. If the curriculum adopted a more developmental, interdisciplinary approach (built on Marcia Baxter Magolda or Chickering & Reiser), then emphasis would be placed on steadily building students’ ability to engage in interdisciplinary inquiry and teamwork, with increasingly sophisticated engagement with disciplinary knowledge and integrative as well as affective development and skills. The above list is intended to be suggestive rather than prescriptive and offers only a few of the many possible approaches.

A more clear and common understanding of interdisciplinary learning will enable students to better understand the meaning and value of the IAS degrees, promote greater cohesion among the faculty, and guide program development, strategic planning and the organizational structure.

### *Organizational Structure*

Faculty and administrators on the UW Bothell campus agree that the campus enrollment could increase at a rapid pace over the next decade. Such dynamic change necessitates that the IAS Program’s organizational structure (which includes the number and types of administrators, the organization of faculty and curricula, and the academic support staffing and structures) will also

evolve. The review team encountered differing viewpoints among the faculty and staff on the optimal organizational structure needed to accommodate this growth.

The committee would like to raise the possibility of a new organizational unit housing some sciences, supporting the needs of several programs on campus and complementing the interdisciplinary approach to arts and sciences within IAS currently. Such a unit could be a separate “department” within IAS (increasing the likelihood of complementarity and cooperation with the current IAS faculty), or could be a free-standing unit at UWB (which may increase the ability to support programs across the campus). We have insufficient information to make this a *recommendation*, but we raise the possibility because of several factors that should be considered as IAS and UWB move forward:

- Course sequencing is crucial in developing science majors. This includes requiring key tools such as calculus, and having a sequence of basic courses required for advanced work.
- To do interdisciplinary teaching/research at the highest level, it may be necessary to hire some faculty steeped in a single discipline, interested in engagement with other disciplines.
- Much of the lower division math is being taught by part-time faculty, which *can* be sub-optimal for students and faculty. This would be a concern for introductory biology and chemistry, as well. A departmental home for full-time faculty would afford them the opportunity to teach upper-division courses.
- The region served by UWB needs more capacity for undergraduate science majors, at least from the perspective of demand for graduates. Demand and preparation by college freshmen are not as assured. Anecdotal evidence, cited by faculty and administrators during our site visit, suggests that prospective students are attracted by the possibility of majoring in a traditional science.
- Graduate-degree programs in sciences continue to expect undergraduate preparation that includes traditional foundational science courses.

Rather than recommending a specific solution, the team encourages the IAS faculty and administration and the UW Bothell leadership to develop an inclusive, transparent and data-driven process for decision-making on this issue with clear objectives and an appropriate timeline. Students, alumni and community partners should be involved as needed. Because the faculty, staff and administrators follow such a busy schedule, a multi-day retreat away from campus and led by an outside consultant and facilitator would likely be helpful in determining the future organizational structure. Faculty time, if outside the academic year, may need to be compensated.

Key decisions should be guided by the mission and philosophy of interdisciplinary education (described above) as well as the following question: “What organizational structure, curriculum, pedagogical approach(es), requirements, and other learning opportunities are needed to ensure that the learning and development of our students are fully promoted and sustained over the next

decade?” Data, including market research on prospective students, enrollment data and trends, student learning outcomes assessment, national studies on liberal and interdisciplinary education (e.g., AACU’s “Liberal Education and America’s Promise” Report, the Wabash National Study of Liberal Arts Education, “Integrative Learning: Opportunities to Connect” by AAC&U and the Carnegie Foundation for the Advancement of Teaching), reports on the next generation of college students (e.g., *Millennials Rising* and the upcoming “Homeland Generation,” by Howe & Strauss), and other key indicators on program success (average time to degree, retention rates, job placement and graduate school placement), should inform decisions relating to the organizational structure of the Program as a whole as well as the development, consolidation, termination and improvement of individual degree options.

### *Assessment*

As noted earlier in this report, the IAS Program has engaged in an admirable level of assessment work. While many academic programs and departments rely mostly upon student evaluations of courses, IAS has taken the added step of incorporating an array of direct and indirect measures in addition to course evaluations, including student surveys, focus groups and multi-year portfolios. In their portfolios, students must reflect on and submit papers and other work that demonstrates the achievement of four areas of competence: critical thinking, collaboration, interdisciplinary research and writing/presentation.

Each year, a small group of faculty and administrators reviews the portfolios as well as other assessment measures of the most recent graduates. But rather than assess all four areas of competence, they focus on one of the four. After reviewing instruments used at other institutions, multiple instruments or protocols are developed or identified by the group and then employed to assess each of the four competencies. While laudable for its ambitious nature, this approach has several key drawbacks: (1) each instrument or protocol is based on differing conceptions of student learning; (2) the faculty are not able to glean a full picture of the learning of students in any one cohort; (3) students are not able to receive ongoing feedback on their progress; (4) the instruments are used so infrequently that they cannot be calibrated for inter-rater reliability and consistency; and (5) the approach entails the development of at least eight different instruments and review processes which is laborious and time-consuming.

The review team would recommend that the IAS faculty consider developing an in-house set of measures that are efficient and can be used annually to assess *all* student learning outcomes as evidenced in the portfolios and focus groups. All faculty members are given training on portfolio scoring and feedback. At midpoint and toward the end of their time at UW Bothell, feedback is shared with the students to aid them in detecting their strengths and areas needing improvement, and the rubric or other instrument used is tested for consistency and reliability and revised accordingly. One rubric and focus group protocol can be created that targets all key learning competencies and faculty can be trained to review portfolios efficiently. A graduate student or staff member could compile the most salient points from focus groups for faculty to review. Data from the annual assessment should be used to guide program development and improvement.

### *Enrollment Management*

Given the anticipated growth of the UWB, it will be imperative for the campus administration to develop a strategic enrollment plan for all Programs, degrees and majors campus-wide, and to tie



fiscal priorities to the plan. Decisions about the creation of new degrees; the termination, expansion or revamping of existing ones; and even seemingly trivial details (such as the name of a degree and the marketing strategy tied to it) must be guided by data and careful planning.

Enrollment growth can be fueled not only by developing new degree options but also by improving the quality and marketing of existing ones. The review team cautions the UWB administration to strike a healthy balance of these two approaches (development of new degrees and increased quality and enrollment for existing ones) and to make concerted efforts to institute new marketing and recruitment strategies to augment the applicant pool and improve the selectivity of admitted students. Examples of possible strategies include:

- Developing a set of trained student ambassadors to engage in tele-recruitment, personalized email, IM and postcard campaigns;
- Holding additional on-campus recruitment days for high school and middle school students;
- Increasing the community outreach projects in the IAS Program to diverse neighborhood and potential feeder schools;
- Organizing a luncheon or breakfast for key guidance counselors and civic leaders;
- Hiring a consultant to assist with branding and marketing research;
- Developing a summer bridge program for returning adult learners and one for high school students;
- Organizing a teacher development workshop on innovative pedagogical approaches (community-based or inquiry-based learning), perhaps in conjunction with the Education Program.

### *Curricular Quality and Depth*

Based on student comments made in interviews, classroom observations, review of syllabi as well as a review of students' portfolio submissions, team members perceive a need for a greater level of curricular depth in the IAS undergraduate degree options as well as in the Masters of Arts in Policy Studies. The review committee does not equate interdisciplinary pedagogy with a lack of intellectual rigor, but rather, sees these challenges as arising more from the structure and sequencing of courses, and recommends that the interdisciplinary pedagogy be retained while adding deeper sequencing of courses and strong foundational courses.

## Recommendations regarding specific degree programs

Below are some specific recommendations on ways to increase the academic quality of the three major degree options:<sup>2</sup>

### *Bachelor of Arts in Interdisciplinary Studies*

The lack of curricular depth in the undergraduate degree options stems from the lack of prerequisites for upper-division courses and the varying levels of preparation and experience on the part of the IAS students. Now that UWB has evolved from a two-year to a four-year campus, more opportunities for sequencing courses and other learning experiences will be more readily available and must be utilized. In order to prepare students for the workforce and graduate or professional school, it is crucial that students gain an in-depth understanding of their field of study and cultivate the attributes, methods, skills and tools needed to engage in rigorous integrative inquiry, teamwork, leadership, and project management.

*Course Sequencing:* The review team strongly encourages the IAS faculty to devote serious attention to sequencing the curriculum to promote the necessary outcomes assigned to each major. Significant quantitative, communication, collaborative, and analytical skills along with disciplinary or interdisciplinary content must be established and cultivated steadily throughout the entire undergraduate experience. Considerable attention should be devoted to identifying how 100-, 200-, 300- and 400-level courses should build on one another in distinct ways. At the same time the Review Committee recognizes that curriculum design is as much an art as it is a science. In a program like BAIS where students from many different options (majors) may be taking the same course with different degrees of preparation and practical experience, the level at which a course is taught may vary from one offering to the next. The foundational courses must also be coordinated with existing standard community college curricula so that transfer students will be able to seamlessly transfer into IAS.

To accomplish this goal, the IAS faculty will need to partner even more closely with academic support units to ensure that students who have been away from educational settings for a lengthy period or students who are under-prepared receive the necessary tutoring assistance to meet the increasingly demanding requirements of the curriculum. Content-based tutoring will be necessary in addition to assistance in writing, quantitative and other skills. Further support can be provided through peer mentoring networks, supplemental instruction, student study circles, or undergraduate teaching assistants. Portfolio assessment should be done midway and near the end of the student's undergraduate experience in order to ensure that students are meeting expectations, progressing well toward the degree requirements, fulfilling key student learning outcomes, and receiving needed support.

*Course Offerings:* The review team noted a plethora of undergraduate course offerings listed in catalogs that relate to the six BAIS degree options. However, students complained that many of the courses listed were never or rarely offered. Undoubtedly, this gap stems from a lack of faculty to cover all of the listed courses. The review team recommends that the faculty survey students to determine their course interests and needs as well as identify key outcomes within the four competency areas that students need to succeed. Then, the program

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<sup>2</sup> These are the three degree programs that the Graduate School charged the review committee to evaluate.

should set up a two-to-three-year schedule of courses that advance student interests and learning needs. Efforts should be made to remove courses that are not taught or not essential for student development. The review team noted many students commenting on their desire for additional courses that focus on arts and humanities (particularly the performing arts and literary analysis and interpretation) as well as mathematics and science-oriented courses.

*BAIS Degree Options:* The BAIS offers six program options (American Studies, Community Psychology; Culture, Literature and the Arts; Global Studies; Science, Technology and the Environment; Society, Ethics and Human Behavior) as well as several minors (human rights and policy studies, computing, business, and education). We recommend that the BAIS faculty reiterate how each program option is or could be distinct yet also contributed to the larger mission of IAS. Toward that end, they should consider the following questions: What will be the distinct outcomes of each program? How can we develop course requirements and learning opportunities that advance those outcomes? What additional resources (human, physical, financial) are needed to fulfill the visions for each program? Review team members heard that faculty with expertise in social sciences, arts, humanities and natural sciences are sorely needed to maintain a high quality learning experience for students in all of the BAIS degree options. Spending time discussing the missions of each program and strategic directions for the future can help to guide fiscal prioritization and hiring practices.

*External Support for program Development:* BAIS faculty and staff may wish to participate in additional national initiatives, such as those offered by the PEW Foundation, Carnegie Foundation and AAC&U. They should work with employers in the region to identify needs/outcomes and develop programming and assessment strategies to demonstrate that they are meeting needs. They may wish to work for endowed professorships in key areas of need.

### *Bachelor of Science in Environmental Sciences*

The reintroduction of the BSES in IAS brings an opportunity to bring natural science into the Program. In reviewing the proposed major, the review committee sees a nice fit between the proposed program and the strengths in ecology within IAS that supports the conservation and restoration biology pathway. However, the curriculum proposed, as well as the expertise of the faculty, does not support the Earth System Science pathway at this time.

While the interdisciplinary strengths of IAS has provided an exciting learning environment for students in social sciences and the humanities, it has lacked focus on foundational knowledge needed for a strong science degree. In examining the requirements for the degree, it is notable that there are no first- or second-year disciplinary classes required for the degree, and no science courses at upper division that distinguish the ESBS students from Environmental Studies students. When comparing this program to other similar programs at other universities, we note that most ESBS majors require at least a course each in chemistry, biology, statistics, and in some programs, some physics and calculus. The ESBS does have a particular strength in integrating social sciences into the curriculum, and this should continue to be supported.

We support the continuation of the integration of the ESBS students with other students in IAS in some courses at the upper level, as the strength of the ESBS in social sciences makes it unique among the other ESBS degrees researched by UW's Program on the Environment, and this focus provides an important source of distinction for the major. At the same time, the differences in the

requirements for the ESBA and the ESBS are quite small. This suggests that a closer look at both the lower division requirements as well as upper division courses is warranted.

To ensure a high-quality BSES, several other key supports are warranted:

*Support for Science Faculty:* The science faculty members at IAS show dedication to their students and to innovative teaching in the IAS curriculum. However, the junior faculty lack mentoring in research, as well as easy access to laboratory space and other research infrastructure at UWB. Investment in the infrastructure and support for the faculty to stay connected to their disciplinary communities are essential. In addition, mentoring of the junior faculty in their research either by faculty at UWB, science faculty at UW Seattle, or science faculty at other institutions would greatly benefit the faculty and undergraduates through the expansion of research opportunities at UWB. Several of the more senior natural science faculty (including Groom and Jaffe) have either a joint or an adjunct appointment with UW Seattle, and clearly their research has greatly benefited from these relationships.

*Mathematics Education within IAS:* The innovative mathematics curriculum developed by junior faculty in IAS is impressive. It is clear that a focus in either IAS or a new science unit should be mathematics and mathematics education. A strong and deep mathematics program provides the underpinning for natural science degrees and allows more quantitative education. At this point, the number of mathematics ladder faculty is subcritical, and this problem should be addressed in the near future.

*Structural Considerations:* The ESBS conservation and restoration biology pathway fits well into both the ethos and the expertise of IAS. However, the major could be greatly strengthened by the creation of a new science unit at UWB (see page 7 of this report) without moving it into such a new unit. The new unit could build off the strengths in ecology in IAS and provide the foundational education required by a natural science degree. The possible initial focus of biological sciences makes sense at this time. In addition, IAS could provide minors for the disciplinary based science majors in conservation/management/ restoration biology that could provide an integrated interdisciplinary focus for traditional science degrees. The coordination of the new natural science unit with or within IAS is essential to continue to provide the unique educational experience that students in IAS rave about, and to build a program in ESBS that could obtain national recognition in its innovation in integration with social sciences, community based education. At the same time the addition of foundational requirements would make the ESBS students more prepared for employment and graduate education.

*ESBS Student Advising:* Academic advising for the ESBS students, especially for those students who are interested in graduate school, must be strengthened. In particular, knowledge of other ESBS programs around the country and in Seattle needs to be readily available to both advisors and students. This is to make sure that foundational courses expected for graduate work are worked into student's course work.

### *Master of Arts in Policy Studies*

The mission of the Master of Arts in Policy Studies (MAPS) program focuses on developing professional competence in policy research, analysis, and management skills to apply in the for-profit, non-profit, and governmental contexts. The mission, and the focus on a student

population that is generally working full-time, is laudable. One minor concern is that the reference to the for-profit sector may lead applicants to inappropriately raise their expectations of the marketability of the degree to the private, for-profit sector, which does not appear well supported by the curriculum. Below are additional concerns and recommendations for MAPS:

*Program Demand:* The niche this program attempts to fill is complementary to the Master of Public Affairs programs offered by the Evans School of Public Affairs at the UW Seattle Campus. This is important, since the two programs are within the same commuting area and the programs could be competing for the same students. A recent decision by the Evans School to drop its Evening Degree program option makes it less likely that there will be substantial competition for the same students, given that this is the population specifically targeted by the MAPS program. It is noteworthy, however, that the Evans School decided to drop the Evening Degree program due to low application numbers, and competition from its day program and a new Executive MPA program. The initial review of the MAPS proposal, in February, 2001, raised some concerns about whether there would be sustained demand for the program. Now that seven admissions cycles have occurred, it is possible to assess how well these concerns have been addressed by the program.

The MAPS program was launched in 2001, enrolling 21 students in that year. New enrollments peaked the second year, at 31, and have fluctuated between 19 and 25 in subsequent years. What is troubling about the admissions numbers is not so much the size of the program, which is small, but the very high percentage of completed applications that result in an admission offer. These admission rates for 2005-2007 are 81%, 90% and 85%<sup>3</sup>. The low selectivity of the admissions process does not appear to bear out the demand predictions of the initial proposal for the MAPS program, and is a source of significant concern for the review committee.

The review committee understands that the marketing of the program has been handled by IAS faculty and staff, and that there is an expectation that more centralized and professional support for marketing the program will be forthcoming in the future. This may raise applications and increase the selectiveness of the admissions process, but this will not be evident for some time.

In addition to the ongoing concerns about demand and selectivity, other concerns need to be raised at this time. These include the small faculty involvement in the program, the degree of integration with IAS generally, and concerns about the curriculum content.

*Faculty Involvement:* The number of faculty involved in MAPS has never been large, but it has suffered from attrition. Fritz Wagner was anticipated to become the senior faculty lead for the program, but transitioned to the UW Seattle campus to become engaged in the College of Architecture and Urban Planning. Another faculty member originally involved in the program passed away after an illness. The understanding of the review committee is that at this time, only two or three faculty in IAS have MAPS as a primary focus. This makes the program vulnerable to the timing of professional leaves (sabbaticals). The committee notes that two faculty members heavily involved in the MAPS program will go on sabbatical next fall.

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<sup>3</sup> These rates are based on admissions information provided by Bruce Burgett on May 10, 2008.

One new faculty member has been hired with policy expertise, Keith Nitta, who focuses on education policy. Also the Center for Reinventing Public Education (CRPE) has relocated (administratively, not physically) from the Evans School at UW Seattle, to UWB and IAS. The addition of a new faculty member with an education policy focus, the connection to CRPE, and the broad interest in interdisciplinary pedagogy in IAS may offer some convergence of interests in education research that could be exploited by the MAPS program and related faculty.

Even with the addition of a new faculty member, and possible access to research faculty in CRPE, who remain located in Seattle, there appears to be significant risk in the MAPS program arising from too small a base of faculty involvement. This risk is exacerbated by the relatively low level of integration between the relatively skills-oriented curriculum in MAPS, and the much broader interdisciplinary education that characterizes the undergraduate programs in IAS. These are very different pedagogical objectives, and it is not clear that faculty who are excellent in one will necessarily be excellent in the other. The MAPS program requires some policy and management experience and knowledge among faculty in order to adequately mentor students and supervise their capstone projects, and to guide them towards career opportunities advertised by the program.

*Curriculum:* The curriculum of the MAPS program is generally parallel to the MPA curriculum in the Evans School at UW Seattle. Some notable differences warrant comment. The courses in MAPS are 5 credit, compared to 3 in the Evans School (core courses are moving to 4 credits next year), for roughly comparable content. Moreover, the 5 credit courses are scheduled from 5:45 pm to 10:05 pm, once a week. It is not realistic to expect that students (and faculty) who work a full day, can actually engage in a full and productive use of that long of a class session that late in the day, no matter how engaging the material and instructor. While the review committee recognizes that there are constraints imposed by the student work schedules, and also by the need to attain a 10 credit schedule to be considered a full time student, the 5-credit courses offered as one long session per week are simply problematic.

A second issue regards the content of the courses. Much of policy analysis as a field is grounded on a thorough understanding of microeconomic principles, including the rationales for policy intervention based on market or government failures. Evaluation of policy proposals is often based on welfare analysis that is built on microeconomic theory and methods. While most programs in public policy require at least one course in microeconomics, MAPS does not. MPOLST 500, the initial course in the program, originally used a text which at least provided a substantive introduction to the use of microeconomic theory in evaluating policies. Over the past year or two, however, pressures have apparently been exerted to eliminate this content, and the most recent syllabi have eliminated it. In the view of the review committee, the title of the degree would be inappropriate if the content of the curriculum does not include a more thorough foundation in the use of microeconomic theory and analytical methods of policy analysis, complemented by management and other theoretical and applied perspectives.

*Additional Recommendations for MAPS:* Given the pattern of attempting to support too many programs with too few faculty, the review committee feels that the MAPS program in IAS is at considerable risk in its current state, and is not fundamentally viable as it stands today. We think the program addresses an important niche, and could be very

complementary to the broader educational and research goals of IAS, but significant actions will be needed if the program is to attain a level of viability, and eventually, excellence.

If IAS is committed to supporting the MAPS program, at least two more faculty should be involved with the MAPS program at a significant level (2 to 3 courses offered in MAPS, and applied expertise in policy analysis and/or management in order to be able to mentor MAPS capstone projects). At the same time, it is clear that for faculty to be able to succeed in IAS, they need to have a broad appreciation for the interdisciplinary approach and mission of IAS, and need to be engaged in other IAS degree programs. This might suggest faculty engagement in environmental policy or educational policy, as two areas that would mesh well with the broader curricular and research activities in IAS, though this is not meant to be a strong recommendation.

IAS faculty and administration may need to assess the costs of mounting a successful MAPS program, a new MACS program (which the review committee found to be a very solid proposal), and the myriad options within the BAIS and the returning BSES degree, and determine whether MAPS is a strategically important investment to sustain. If so, more resources need to be devoted to it, in a way that complements other activities within IAS. If not, then those faculty engaged in MAPS could potentially redirect their efforts towards other strategically valued initiatives within IAS.

## Conclusions

The review committee is impressed by the dedication of the faculty and staff, and the enthusiasm of many students for the programs offered. IAS has successfully designed and implemented an interdisciplinary, student-focused undergraduate program. As the Program and the campus prepares for further growth and adjusts to the addition of freshmen and sophomores, we encourage strengthening of programs' curricular structure, clarification of the organization of faculty and staff, discretion in adding new programs, and discussion of the meanings of "disciplines" and "interdisciplinarity" for student learning.

For the sake of coherence and continued faculty commitment, we think that these decisions must be based on faculty deliberation and decision making. We also think that these decisions should be driven in part by data on current students' learning outcomes and potential students' demographics and academic plans.

Our summary evaluation of the three existing programs, and their schedule for subsequent review:

### Bachelor of Arts in Interdisciplinary Studies

BAIS can be compared with other strong interdisciplinary programs for commuting and nontraditional students (e.g., Wayne State, University of Maryland Baltimore County). This program, however, is distinct in its use of multiple degree options, its focus on experiential and community-based learning, and its expansive curricular options.

We recommend the continuation of the program, with strengthened assessment and curricular sequencing and continued clarification of the distinctions among the current degree options.

We also recommend additional resources for the performing and visual arts. This should include multi-purpose performance and exhibition spaces, adequate professional staffing, training for student interns, new media equipment, and workshop supplies. New degree options should be added sparingly and strategically.

Given the growth and change in the program, we recommend an external review in 5 years.

#### Bachelor of Science in Environmental Sciences

Re-introduce the ESBS track focusing on conservation and restoration biology, which is well supported by the Program's interdisciplinary faculty. The Earth Systems Sciences pathway is not viable as an option currently: there are not enough upper-division science courses, nor a faculty large enough to support the additional courses needed.

Given the new re-introduction, we recommend an external review in 5 years.

#### Master of Arts in Policy Studies

This program should continue if UWB is willing and able to devote additional faculty resources to the program in the near future. In addition, we hope that new resources dedicated to recruitment and community engagement will increase the numbers of applicants.

Given the pressing need for additional faculty, we recommend an external review in 3 years.



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## Appendix

**University of Washington Bothell  
Interdisciplinary Arts and Sciences Program  
Site Visit Agenda  
May 5-6, 2008**

### **Sunday, May 4**

- 4:00 – 5:30 p.m.      Executive Session - **Watertown Hotel** – 4242 Roosevelt Way NE
- 6:00 – 7:30 p.m.      Dinner:    **Nell's Restaurant** – 6804 E. Green Lake Way N. (524-4404)

### **Monday, May, 5** Location: **Rose Room, UW1-280** / Classroom Locations: **Noted below.**

- 8:30 – 9:30 a.m.      **IAS Administration:** Bruce Burgett, Interim Director; Diane Gillespie and Martha Groom, Associate Directors; and Colin Danby and Bruce Kochis, Assistant Directors
- 9:45 – 10:15 a.m.      **IAS Staff:** Kathryn Cavil, Assistant Director of Academic Services; Rachel Foote and Marge Baylor, Academic Advisors; Lindsey McCarthy, Program Coordinator; Pam De Priest, Administrative Coordinator; Rachel Pulver, Office Assistant III; Christy Cherrier, Science Coordinator; Michelle Cruver, Community Partnership Coordinator; Andrew Brusletten, Manager, Graduate Programs, Leslie Schiffman, Program Coordinator, Graduate Programs
- 10:20 – 10:50 a.m.      **Class Visits:** BIS 300, Interdisciplinary Studies (**David Goldstein, UW1-121**)  
  
                                 BIS 325, Disability and Human Rights (**Kanta Kochhar-Lindgren, UW1-010**)
- 11:00 – 11:30 a.m.      **Class Visits:** BIS 490A, Senior Seminar (**Wadiya Udell, UW2-205**)  
  
                                 BIS 435, Interactive Learning (**Stephanie Scopelitis, Diane Gillespie, UW1-220**)
- 11:45 – 12:30 p.m.      **Experiential-Learning and Assessment Discussion with Faculty and Staff:** Bruce Burgett, Michelle Cruver, Warren Gold, David Goldstein, Martha Groom, Cinnamon Hillyard, Bruce Kochis, Ron Krabill, Becky Rosenberg (Director, Teaching and Learning Center), Eric Stewart, Elizabeth Thomas, Rob Turner
- 12:30 – 1:30 p.m.      **Lunch and Campus Tour** (Tour Guide: Colton Lindelof, IAS Undergraduate Student)
- 1:30 – 2:00 p.m.      **Community-Based Learning Discussions with Students:** Michelle Cruver (**Rose Room**)  
  
                                 **Class Visit:** BIS 382, The Visual Art of Biology (**Rebecca Price, UW2-141**)
- 2:15 – 2:45 p.m.      **Lecturers; Project for Interdisciplinary Pedagogy (PIP) Fellows and Mentors:**  
  
                                 **Lecturers (various ranks):** Leslie Ashbaugh, Robert Farkasch, Mike Gillespie, Bruce Kochis, John Rasmussen, Julie Shayne (**IAS Seminar Room, UW1-391**)

**PIP Fellows:** Shauna Carlisle, Kevin Ramsey, Georgia Roberts, Stephanie Scopelitis; **Mentors:** Ron Krabill, Linda Watts; **In attendance:** Bruce Burgett, Martha Groom, Becky Rosenberg (**Rose Room**)

- 3:00 – 3:30 p.m. **Library and Teaching and Learning Center Staff:** Andreas Brockhaus, Manager, Learning Technologies; Nicole Hoover, Director, Quantitative Skills Center; Sarah Leadley, Head, Reference & Instruction Services/American Studies Librarian; Suzan Parker, Reference & Instruction/Social Sciences Librarian; Becky Rosenberg, Director, Teaching and Learning Center; Kim Sharp, Coordinator, Writing Center
- 3:45 – 4:35 p.m. **Assistant Professors:** Peter Littig, Cinnamon Hillyard, Kari Lerum, Rebecca Price, Eric Stewart, Elizabeth Thomas, Rob Turner, Wadiya Udell
- 4:45 – 5:35 p.m. **Associate Professors and Professors:** Constantin Behler, Colin Danby, Nives Dolšak, Diane Gillespie, Michael Goldberg, Martha Groom, Jeanne Heuving, Dan Jacoby, Gray Kochhar-Lindgren, Kanta Kochhar-Lindgren, Bill Seaburg, David Stokes, Linda Watts
- 5:45 – 6:30 p.m. **Class Visit:** BPOLST 571, Policy Ethics (**Bruce Kochis, UW1-210**)
- 6:30 p.m. **Dinner**

**Tuesday, May 6 Location: Rose Room, UW1-280**

- 8:00 – 9:00 a.m. **Review Committee members meet with individual IAS faculty members**
- 9:00 – 9:50 a.m. **Faculty and Staff in Natural Science Curricular Areas (STS, ES, and BS ES CAWGS):**  
  
**Conveners:** David Stokes, Warren Gold; **In attendance:** Warren Buck, Christy Cherrier, Mike Gillespie, Martha Groom, Cinnamon Hillyard, Nicole Hoover, Dan Jaffe, Rebecca Price
- 10:00 – 10:50 a.m. **Faculty and Staff in Social Science and Humanities/Arts Curricular Areas (AMS, CLA, CP, GST, IA, LPE, SEB CAWGS):**  
  
**Conveners:** Colin Danby, Dan Jacoby, Gray Kochhar-Lindgren, Kanta Kochhar-Lindgren, Kari Lerum, Wadiya Udell; **In attendance:** Bruce Burgett, Martha Groom, Cinnamon Hillyard, Rebecca Price (1<sup>st</sup> ½ hour), Michael Goldberg, Jeanne Heuving, Ron Krabill, Linda Watts
- 11:00 – 11:50 a.m. **Faculty from the MAPS/MACS Curricular Area:**  
  
**Convener for MAPS:** Bruce Kochis; **Convener for MACS:** Kanta Kochhar-Lindgren; **In attendance:** Bruce Burgett, Andrew Brusletten, Nives Dolšak, Cinnamon Hillyard (1<sup>st</sup> ½ hour), Dan Jacoby, Elizabeth Thomas, Linda Watts
- 12:00 – 12:30 p.m. **Student Advisory Board:** Colton Lindelof, Sandra Penney, Esther Pineiro-Hall, Barb Thomas, Andrea Turner
- 12:30 – 2:30 p.m. **Lunch and Review Committee Executive Session**

- 2:30 – 3:30 p.m.      **Exit Discussion:** Bruce Burgett, Interim Director, Diane Gillespie and Martha Groom, Associate Directors; Susan Jeffords, Vice Chancellor for Academic Affairs  
Douglas Wadden, Executive Vice Provost for Academic Affairs and Planning,  
   Office of the Provost  
James Antony, Associate Dean for Academic Programs, The Graduate School  
John Sahr, Associate Dean, Office of Undergraduate Academic Affairs  
Augustine McCaffery, Senior Academic Program Specialist, The Graduate School
- 3:30 – 4:30 p.m.      **Exit Discussion:** Susan Jeffords, Douglas Wadden, James Antony, John Sahr, Augustine McCaffery
- 4:30 – 5:00 p.m.      Review Committee Debriefing