

Recommendations for the Structural Re-organization of COLSA

Submitted by:

**COLSA Strategic Planning
Committee**

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Part I. Alignment of the COLSA Strategic Plan with the Proposed Academic Program and Administrative Structures

The vision that inspires the goals and strategies in the recently approved COLSA Strategic Plan 2007 – 2012 is also central to the organizational structure design proposed for the college. The members of the Strategic Planning Committee believe that the recommended college structure will be a critical component for implementing the strategic plan and for enhancing “our position as a premier Land and Sea Grant college with nationally and internationally recognized programs in life sciences, agriculture, natural resources, and applied technical and social sciences.” (COLSA Vision Statement)

This new structure will promote the organizational change necessary for increasing regional, national and international leadership in teaching, research and outreach. Based on the COLSA Strategic Plan 2007 – 2012 and the shared vision for the college’s future, six design criteria were agreed upon and used by the Strategic Planning Committee (Appendix 5). These are:

- Academic Program Excellence
- Research Productivity & Excellence
- Outreach, Cooperative Extension & Public Service Capacity
- Responsiveness to Current and Future Students
- Effective Shared Governance and Administrative Processes
- Efficient Resource Utilization

These criteria were used in the initial design phase and to evaluate various college academic program and administrative structure models. The consideration of a new college model also included reviewing UNH comparator universities to understand current academic program and organizational design models. The decision to recommend the academic program and organizational structure for the college is based on current teaching, research and outreach requirements but most critically, anticipates the future requirements to enhance COLSA’s reputation and leadership.

The COLSA Strategic Plan 2007 – 2012 identified five Strategic Issues that are essential for the college to address in order to be successful. The proposed academic program and organizational structures will improve the college’s planning and success in dealing with these strategic issues:

Strategic Issue 1. Academic & Research Programs

The proposed academic program and administrative structure models provide centrality of resources and opportunities for flexibility in developing new graduate and undergraduate academic programs. Much of the innovation in science today comes from interdisciplinary teams that bring multiple perspectives and research strengths to bear on a problem. The academic program and administrative models are ideally designed to

promote interdisciplinary opportunities within and between academic units for teaching and research.

Strategic Issue 2. Leadership

A major strategic issue for the college is to improve effective communication among college faculty, academic units, and the college's senior leadership. The number, size, and focus of the proposed academic units provide the required communication structure for building clear and open communications. There will be greater clarity and input by the faculty into the decision-making process and better coordination between academic units. Clear and consistent standards of accountability for each academic unit will be one measure of success.

Strategic Issue 3. Cooperative Extension, Outreach and Public Service

Clarity of strategic direction and a focused set of academic and research resources within each academic unit will facilitate external customer and collaborator understanding of the college's structure and programs. Not only will potential undergraduate and graduate students, their families and advisors, have a clearer understanding of COLSA's assets and offerings, so will stakeholders within the state and region. As part of the college's plan to increase its visibility and contribution, the proposed academic program and administrative structure models will facilitate and encourage closer cooperation with Cooperative Extension and other potential collaborators.

Strategic Issue 4. Financial Issues

The proposed academic program and administrative structures provide greater opportunity to design and deliver cutting edge academic program offerings at the undergraduate and graduate levels. The ability of COLSA to attract and retain high caliber students will benefit the college in the production of credit hours that is essential in an RCM financial environment. There is also the expectation of curricular change within these new academic units that will deliver new and innovative course offerings and majors that are also more resource efficient.

New research initiatives, especially multi-investigator and multi-disciplinary in focus, will benefit from the proposed college re-organization. Although the college cannot "research itself out" of the current financial situation, new sources of external funds will be a major contributor to the financial health and academic well being of the college in the future.

Strategic Issue 5. Infrastructure Needs

A major recommendation is that the farm and woodland assets of the college be placed under one administrative structure. This will increase administrative and budget consistency and allow all academic units of the college to benefit from the availability of these resources and share their upkeep costs. There is also potential cost savings in centralized administrative budget management of these facilities. A faculty committee representative of all segments of the college will provide oversight and direction.

Part II. Explanation of Academic Program View and Administrative View Program Models

Academic Program View

This section of the report will explain the two ‘views’ of the structural re-organization proposed for adoption by the college for academic programs and administrative activities at the department/unit level. The description of these ‘views’ is the ‘what’ that is being proposed. The ‘why’ is provided in Section III. As noted, the names of the three new proposed academic departments are placeholders until the faculty in these units select a permanent name. The asterisk (*) used throughout this report after the names of these three proposed new academic units/departments indicates that the final name will ultimately be determined by the unit.

The first view is the ‘Academic Program View’ (Exhibit 1). The intent of this diagram is to show the proposed location of the current academic programs in the college as well as examples of the potential programmatic themes that the strategic planning process determined have potential and importance for the future (these are noted in italics and blue ink and are marked with double asterisks**). It is this view where the Strategic Planning Committee first began its design process.

There are four academic units proposed plus a plan for agriculture as a set of programs - academic, research, and outreach – that will be offered across all academic units yet coordinated academically, programmatically, and financially as a central function of the college. This plan contrasts sharply with previous plans in that agriculture will be integral to the mission and success of all the academic units in the college. There is also an emphasis on cross-departmental design and delivery of programs as well as the opportunity for multi-disciplinary teams to form around research opportunities.

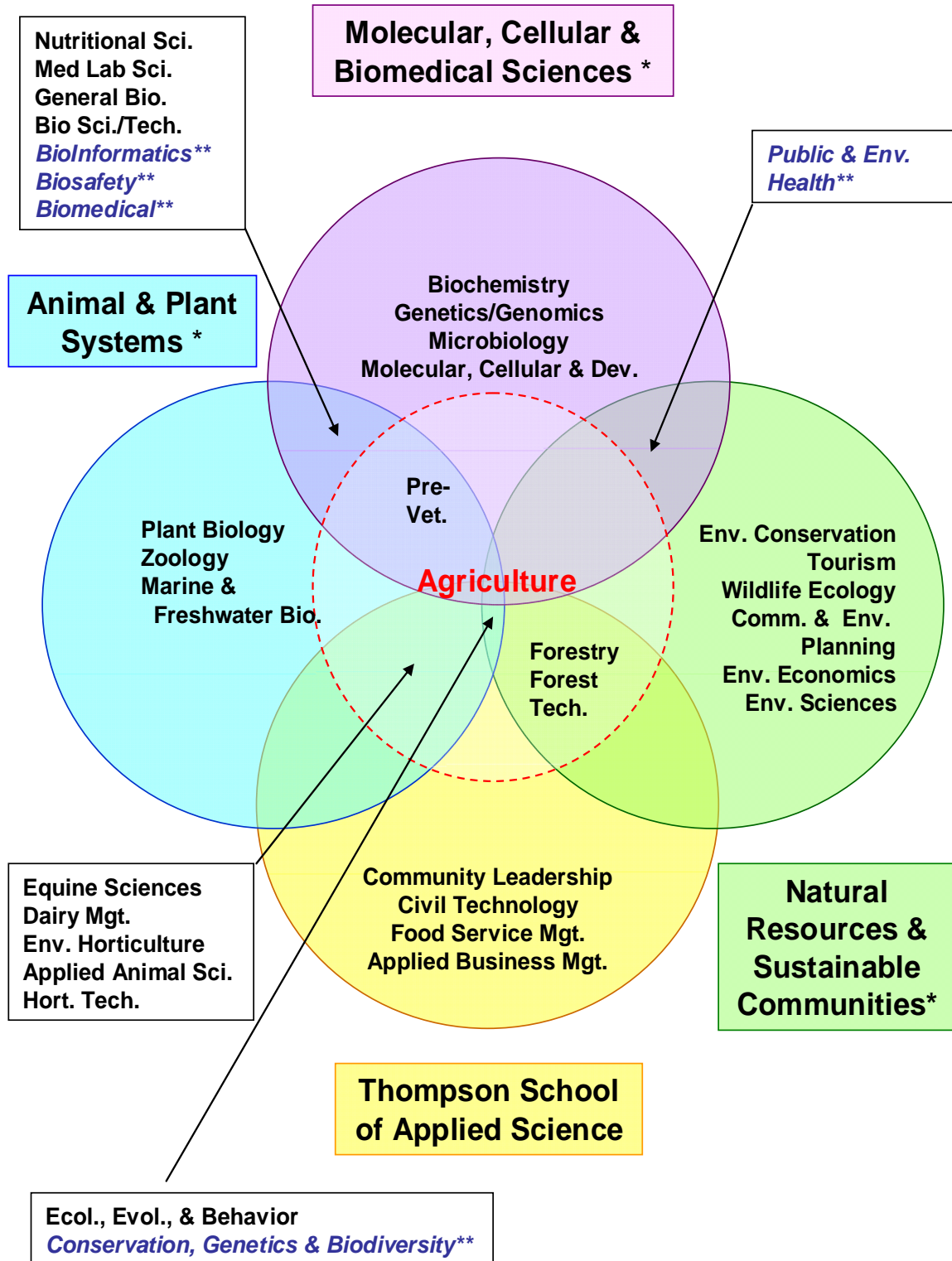
Appendix 1 provides a detailed listing of current undergraduate programs and the proposed programmatic and administrative alignment. Appendix 2 provides a listing of existing graduate level programs with the proposed programmatic and administrative alignment. These appendices also note current and potential graduate and undergraduate program offerings that relate to agriculture.

The four academic units as proposed are:

- Molecular, Cellular & Biomedical Sciences*
- Animal & Plant Systems*
- Natural Resources & Sustainable Communities*
- Thompson School of Applied Science

In addition, there is a circle at the center of Exhibits 1 and 2 that show agriculture as a core of the college with all four academic units fully involved in delivering academic

Exhibit 1: Academic Program View



*Dept. Names TBD
**Proposed Programmatic Themes

programs, outreach, and except for the Thompson School, research programs. The number of proposed academic units, and the academic programs within them, and the role of agriculture within the college are major differences of this proposal in comparison to plans offered earlier.

The Molecular, Cellular and Biomedical Sciences department* will be composed of programs in biochemistry, genetics/genomics, microbiology, MCD (Molecular, Cellular and Developmental Biology), nutritional sciences, medical laboratory sciences, pre-veterinary medicine, and bioscience/biotechnology. The programs in nutritional sciences, medical laboratory sciences, pre-veterinary medicine, and bioscience/biotechnology will have heavy participation of the Animal and Plant Systems* department. These two departments will also jointly offer the General Biology program. As presented in Appendices 1 and 2, both of these academic units have major program offerings – academic, research, and outreach – in agriculture. Potential program offerings for the Molecular, Cellular and Biomedical Sciences department* include bioinformatics, biosafety, and biomedicine.

The Animal and Plant Systems department* will offer programs in plant biology, zoology, marine and freshwater biology, equine sciences, dairy management, environmental horticulture, and EEB (ecology, evolution, and behavior). The EEB degree will have participation by the Natural Resources & Sustainable Communities department* while the programs in equine sciences, dairy management, environmental horticulture will be offered in alignment with current offerings in the Thompson School.

The Natural Resources and Sustainable Communities department* will offer programs in environmental conservation, tourism, wildlife ecology, community and environmental planning, forestry, and environmental economics and sciences. This proposed new unit has proactively been in merger talks over the past academic year and these discussions have yielded a number of new academic program and research concepts. This unit shares a strong programmatic alignment with the Thompson School in the area of forestry. Potential new program offerings include conservation, genetics and biodiversity with the Animal and Plant Systems department* and a public and environmental health program with the Molecular, Cellular and Biomedical Sciences department.*

The Thompson School of Applied Science will continue to operate within their existing programmatic and legislative framework offering associate degree programs in applied animal science, forest technology, horticultural technology, community leadership, civil technology, food service management, and applied business management. Exhibit 1 illustrates how the Thompson School can be more fully integrated into the academic programs of the college. A greater degree of academic planning and program integration with the four year programs of the college is anticipated and desired. There is much potential in greater program alignment between the Thompson School and the three proposed academic departments.

Agriculture programming within the college has been fully integrated into all academic units in the proposed model. This positions agricultural programs to be able to provide academic, research, and outreach programs consistent with student and stakeholder needs. This is a very forward looking view of agriculture for the 21st Century where multidisciplinary and multi-departmental programs will be on the leading edge of science creating profession ready graduates and value for the agriculture sector. The importance and centrality of agriculture to the future of the college is elevated in the proposed academic programming and administrative structure models.

Administrative View

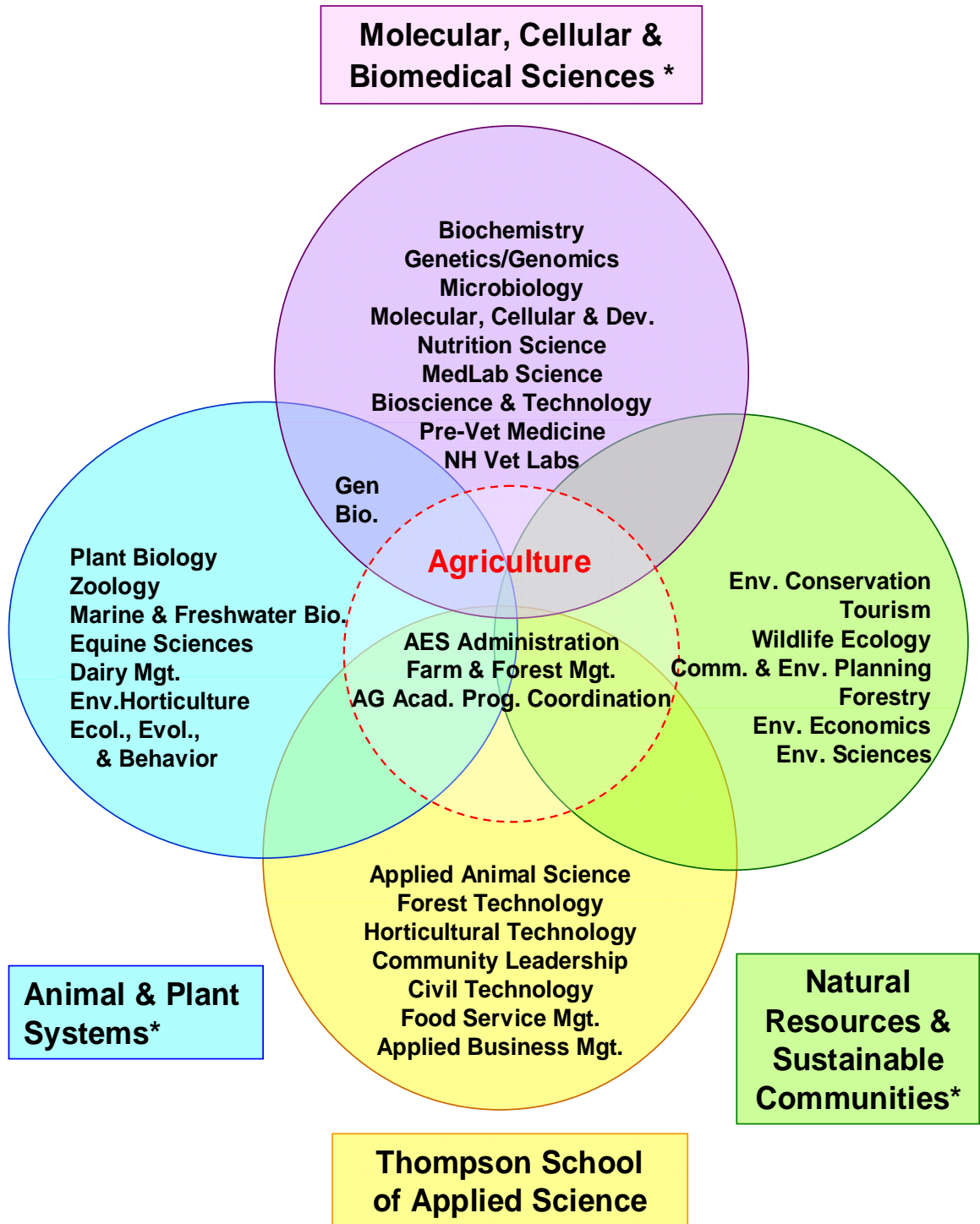
The second view is the ‘Administrative View’ (Exhibit 2). The intent of this diagram is to show the proposed administrative location of the current academic programs and program facilities in the college. There is strong emphasis in the COLSA Strategic Plan 2007 – 2012 on interdisciplinary and multidisciplinary academic and research programs. This strategic objective is well represented in Exhibit 1 – the Academic Program View. Yet one of the organizational design principles used to create the proposed models is to have clear and effective administrative units for all programs.

There has been concern in the past about the lack of academic and administrative home departments for the General Biology and the genetics programs. Both of these issues have been addressed. The administrative tasks (budgets, teaching assignments, graduate teaching assistantships, student advising) for General Biology will be co-managed by the two department chairs in Animal and Plant Systems* and Molecular, Cellular and Biomedical Sciences.* There is also administrative clarity on marine programs that should assist UNH in elevating its visibility to outside constituents.

The proposed administrative structure has AES (Agricultural Experiment Station), agricultural academic program coordination, and farm and forest management all within one administrative structure. This degree of coordination and administrative centrality is called for in the COLSA Strategic Plan 2007 – 2012. This will provide more effective use of these resources while providing clear and consistent academic program coordination for agriculture. While there is adequate administrative staffing within the college to provide this coordinated structure without adding new positions, strong leadership will be required to maximize the opportunity to elevate and coordinate agriculture within the college.

The proposed new academic departments will need to redefine the role of chair given the increased scope of responsibilities. Workload issues need to be recognized for the new chairs of these academic units. These new departments will require adequate administrative support resources and budget support.

Exhibit 2: Administrative View



*Dept. Names TBD

Appendix 4 provides an analysis of the proposed administrative structure for the college. Estimates of faculty, academic majors, students, and student credit hours in the proposed academic program and administrative structure have been compiled. There is a relatively even distribution of faculty across the three new proposed academic departments. There is also appropriate alignment of undergraduate and graduate degree programs and undergraduate student credit hours in these three units and with the Thompson School. Overall, the proposed administrative structure provides clarity for academic program management (curriculum, teaching assignments, student advising), budget development, graduate teaching assignments, and provides a structure for faculty to create innovative academic and research programs and prioritize new faculty hires for the college. These are the critical components needed for the college to successfully implement the COLSA Strategic Plan 2007 – 2012 at the department level.

Part III. Academic Unit Re-organization

The five sections that follow provide an explanation of the reasoning for the academic program and administrative structure recommended for adoption by the college. Each of these sections addresses key design questions. These are:

- Rationale
- Impact
- Future Focus
- Synergies
- Key Linkages

The SPC started with the design of academic, research, and outreach programs first; then progressed to organizational structure. This is the same ‘form follows function’ concept that guided the development of the proposed academic program and organizational models that are a logical outgrowth of the COLSA Strategic Plan 2007 – 2012.

Cellular, Molecular, and Biomedical Sciences*

Rationale

This department brings together current strengths in Biochemistry, Microbiology, Nutrition, and bio-medical sciences. While it is recognized that research and teaching in modern biology must integrate across all levels of organization, the Cellular, Molecular, and Biomedical Sciences department* will bring together faculty that share both interests and research strategies. It will bring into one unit individuals engaged in biomedical research and teaching at both the basic and applied levels. The reduction of multiple smaller units to fewer larger units will provide a more efficient process for the development of shared programs.

Impact

Teaching. This reconfiguration will promote more efficient use of faculty by eliminating redundancies at the level of both programs and course offerings. Particularly in the areas of genetics/genomics and clinical medicine, the structure will facilitate the evolution of academic opportunities through the development of new programs and course offerings.

Research. This integrated department will provide closer integration and management of shared facilities. It will enhance the formation of a common or shared graduate program within this department. Additionally it will facilitate the integration of existing or future technologies, *e.g.*, bioinformatics, into research programs.

Outreach. This departmental cluster will be capable of defining common metrics for service and outreach, including service on study sections and review panels as well as other activities shared across units within our College.

Future Focus

The department will play a leadership role in the development of new academic programs in, for example, genomics/bioinformatics, biomedical sciences, neurobiology/endocrinology. It will be a unit where key future programs are likely to emerge, through the grouping of faculty with shared interests into a single administrative unit. The larger size of this department will allow a more efficient response to emerging initiatives in the areas of molecular and cellular biology and biomedicine.

Synergies

This department will bring together faculty from programs previously distributed in at least five different departments and create an administrative structure that enhances interaction. It will allow for new interactions and new programs in line with emerging areas in biology and biomedicine.

Key Linkages

It is expected that there will be strong linkages between this department and the Animal and Plant Systems department*, and many programs may flourish at their interface, *e.g.*, biosafety. The expertise that will reside in this new department will be an indispensable resource to the other departments and in agriculture at the college and UNH, *e.g.* engineering programs. It will be an equal partner with the Animal and Plant Systems department* in offering core courses in biology and in shared administration of the General Biology program.

Summary

This department will be composed of faculty with research and teaching interests, and expertise, in exploring life at cellular and molecular levels. It will bring together existing programs with a biomedical emphasis, thus strengthening our teaching and research activities in this area. It is expected that faculty associated with the existing programs of biochemistry, molecular biology, microbiology, genetics, nutritional

sciences, medical laboratory sciences, bioscience and technology, and pre-veterinary medicine would become part of this new unit. Faculty with shared interests from other existing programs may also become associated with this new department, either directly or through joint appointments.

Animal and Plant Systems*

Rationale

Clustering programs that focus primarily on whole organisms and ecosystems provides for greater integration, and less redundancy, of program offerings (e.g., ecology, marine and freshwater biology) and course offerings (e.g., physiology) than the current structure within COLSA. It also improves integration of basic and applied areas of disciplines within one academic unit. This new department provides an academic and administrative home for students, faculty, and curricula of the General Biology and the Marine and Freshwater Biology programs. The proposed organizational design addresses the long-standing internal and external criticism of the current interdepartmental Biology Program.

Impact

Teaching. The proposed structure offers the opportunity for development of curriculum and new course offerings in the marine sciences that better integrates the plant and animal disciplines. Similarly, animal physiology is housed within one academic unit, which provides for the teaching of one, comprehensive physiology course, meeting the needs of all students interested in agriculture, marine, and medical sciences. Overlap with agriculture and marine programs promotes inclusion of agriculture and marine research faculty with teaching courses in production agriculture and aquaculture. The structure provides for departmental assignment of faculty and teaching assistants for program offerings.

Research. Shared use of facilities and equipment of like-minded faculty who conduct research at the whole animal level and beyond affords greater opportunity for interaction, collaboration, and multi-investigator research. The proposed academic program structure provides new opportunities for integration of plant and animal disciplines with emphasis in areas of conservation, ecology, systematics, and integrated aquaculture/agriculture.

Outreach. Inclusion of Cooperative Extension faculty in this academic unit promotes greater awareness in current research areas of marine, animal, and plant biology. Linkage to the Agricultural Experiment Station (AES) and centrally-administered facilities provides for improved coordination of teaching, research, and

outreach use of farms, forests, and marine facilities. A similar connection can be established with Sea Grant and the Marine Program to coordinate engagement efforts (e.g., through the Marine Docents program).

Future Focus

The proposed structure provides for a critical mass of faculty and students, and ownership of programs by the department in areas of strategic emphasis. This will enhance the opportunity for interdepartmental offerings and new offerings (see Exhibit 1), yet ensures effective departmental administration (see Exhibit 2). The Marine and Freshwater Sciences program within the proposed structure will have greater visibility and greater opportunity for integration with the current Marine Research Program within UNH.

Synergies

Integration of plant and animal disciplines, as well as basic and applied sciences, will strengthen teaching, research, and outreach goals beyond what is possible with discrete departments.

Key Linkages

COLSA Programs: Nutritional Sciences, Medical Laboratory Sciences, General Biology, Bioscience and Technology, Equine Science, Dairy Management, Environmental Horticulture, Applied Animal Science, Horticulture Technology, Ecology, Evolution, and Behavioral Biology

COLSA Departments: Possible new interdepartmental offerings in the clinical and biomedical fields (e.g., bioinformatics, biosafety, and biomedicine) with the Molecular, Cellular, and Biomedical Sciences department*; and in ecology (e.g., conservation, genetics, and biodiversity) with the Natural Resources and Sustainable Communities department*; strengthening of existing applied programs (e.g., Equine Science, Dairy Management, Environmental Horticulture) with the Thompson School and the 2+2 articulation programs.

UNH: Cooperative Extension, UNH Foundation, Sea Grant, and Marine Program

External: NSF, USDA, NIH, Other Federal and State Agencies or Organizations, Private Foundations, Universities and Colleges within the Northeast Region, Other Land Grant/Sea Grant Institutions.

Summary

This new academic unit unifies plant and animal faculty into one academic unit and represents a continuum from the most basic to the applied aspects in teaching and research. Emphasis centers on the whole organism and a systems-level perspective, distinct from that of the Molecular, Cellular and Biomedical Sciences department*. Interdepartmental programs are shared in the clinical and biomedical sciences with Molecular, Cellular, and Biomedical Sciences department*, and in the applied sciences with the Thompson School of Applied Science.

Natural Resources and Sustainable Communities*

Rationale

The integration of the Natural Resources (NR) and Resource Economics and Development (RED) Departments has been a recommendation of major plans put forward over the past two years, including the COLSA Programmatic Displacement Review Committee and the President's Plan. It was also recommended by the outside review committees for both departments when they submitted their reports last spring. Thus, the two departments have had a number of substantive discussions regarding merger. The level of detail in this section reflects these discussions.

One of the strengths of NR has always been the ability to deliver high quality individual major programs which span disciplinary boundaries, each program enhancing the others. Similarly, RED major programs are highly integrated so that each program supports every other program.

This unit's interdisciplinary programs, built on the foundation of strong faculty and programmatic resources, provide an excellent foundation in a strong department that will lead to even better education and research. The proposed merger of these two departments will lead to further strengthening of interdisciplinary programs in the natural resources (environmental conservation studies, forestry, environmental sciences, wildlife ecology and related areas) as well as new initiatives that take advantage of additional expertise from RED faculty. Members of the two departments in question are already collaborative; however, the strictly disciplinary departmental structures which exist in most universities may hinder the emergence and development of additional interdisciplinary programs. Merger will remove these remaining barriers and permit even greater synergy.

Impact

Teaching. The current skills of faculty members, courses offered, alumni, and stakeholders of the RED Department will strengthen the current NR Department, particularly as the department moves forward to develop a top quality program in Community and Environmental Planning. A review of undergraduate and graduate programs, and contributions to the Discovery/General Education program, will lead to greater efficiency in the delivery of courses and better use of teaching resources. While there are expected savings from this merger by increasing student credit hours per faculty FTE, the most attractive opportunity in the teaching area is that coordination will improve the students' learning experiences, and the synergy of expertise will allow the department to meet an identified need with the new program. At the graduate level, there are plans to adapt the existing Resource Administration and Management degree to a strictly professional MS. Within five years the department would also like to offer an MS in Community and Environmental Planning, possibly jointly with UNHM.

Research. NR has strong graduate programs at both the MS and Ph.D. levels (through the NRESS Ph.D. program). The addition of RED faculty provides additional opportunities to improve the social science dimensions of research collaborations among complementary faculty members. Greater efficiency and productivity can be achieved in research by better coordinating the efforts of faculty and graduate students, leading to stronger research proposals, increased external funding, and higher research productivity.

Outreach. Integration of the two existing departments will enable better coordination of effort with Cooperative Extension educators and staff who are either housed within or associated with existing departments, and participate in the teaching and research missions. The department will also assist the New Hampshire Department of Fish and Game, the USDA Forest Service, the New Hampshire Office of Energy and Planning, and the New Hampshire Department of Environmental Services with their research and management needs.

Future Focus

The faculty will complete the design of the Community and Environmental Planning program that will replace the current Community Development Program and with a new faculty position, be able to fully meet this need. There is currently under review a possible expansion of the Sustainable Living program to incorporate organic food and improved nutrition. Additional academic and research options under consideration are possible termination of the MS in Resource Economics; methods for strengthening the Forestry Program to meet the expanding needs of the State and region; and a collaborative effort with Health Policy and Planning to consider a cross college program in Public and Environmental Health.

Synergies

A merger will lead to greater breadth and depth in the applied social sciences that currently does not exist in either department. These broader capabilities will assure that all necessary academic skills are available to provide a top quality education program and strong research teams. For this reason, it is more likely that a critical mass in the applied social sciences will be achieved, and the merged department will have greater flexibility and adaptability. This newly strengthened social science program will thus be a highly visible and viable component of the new department as applied economics and other social sciences are essential disciplinary components of any Land-Grant university's character.

Key Linkages

COLSA Programs: Natural Resource's EcoQuest New Zealand Field Studies Program is one of the premier field studies programs in the US, and currently involves qualified students from across UNH and other top colleges and universities as well as those from in the program. The NRESS doctoral program, the largest at UNH, will continue to benefit from strong DNRSC involvement as most RED faculty are also members of the NRESS faculty.

COLSA Departments: There is currently a 2+2 articulation agreement between NR-Forestry and TSAS Forest Technology, and there will soon be 2+2 agreements between TSAS-Applied Business Management and TSAS-Community Leadership and RED.

UNH: COLSA--NR: Masters of Environmental Education with Dept. of Education in COLSA; WSBE--Environmental Conservation Studies, Planning and Environmental Economics have strong links in the Economics and Management Programs; CEPS--NR and Earth Sciences jointly administer the Environmental Science Program; HHS--potential for a new joint program in Public and Environmental Health has been suggested; this would likely involve nutritional sciences as well.

External: Faculty in the two (current) departments have actively collaborated with the NH Dept. of Fish and Game, Dept. of Environmental Services, Dept. of Agriculture, Dept. of Resources and Economic Development, and Office of Energy and Planning; the Northeast Consortium, regional planning commissions; Various federal and state agencies, local and regional planning and economic development boards; , and various non-profit groups (e.g. Society for Protection of New Hampshire Forests, Appalachian Mountain Club). Faculty members play active roles in policy and research initiatives with USDA, USEPA, NOAA, and other federal agencies.

Summary

All natural resource problems are people problems, thus bringing additional applied social science disciplines currently housed in Resource Economics and

Development (RED) together with the interdisciplinary expertise in Natural Resources (NR) will enhance our capacity to address the human dimensions of natural resources and environmental problems as well as to provide a strong foundation in ecology for the social sciences. The newly developed department of Natural Resources and Sustainable Communities will integrate more fully the applied social sciences and natural resources sciences to enable a more holistic, integrated approach to education, research, and outreach about use and conservation of resources upon which we all depend. We are excited about the prospects for a new college structure and to developing interdisciplinary programs with our sister departments.

Thompson School of Applied Science

Rationale

The Thompson School of Applied Science (TSAS) has been an academic unit since 1895 at the University of New Hampshire. It has been part of the College of Life Sciences and Agriculture for many years because of its original agricultural curriculum. Keeping it as part of the college and integrating it even more tightly in appropriate areas of the newly reorganized COLSA is most suitable.

The Thompson School has teaching at the heart of its mission which is also a highly valued component of COLSA's mission. Undergraduate education delivered in an academic setting with an emphasis on applied pedagogy is where the Thompson School excels and can complement many aspects of COLSA's undergraduate programs.

Impact

Teaching. The Thompson School currently has seven different disciplines with opportunities for 13 specializations within those program areas. Five of these program areas augment curricula already established within COLSA quite readily and two can add components to already existing degree programs. With vision, there are many more connections that can be made especially in the new agricultural agenda put forth in the proposed academic program redesign.

Research. The Thompson School does not typically engage in research, however, grantsmanship for scholarly and pedagogical endeavors perhaps could be enhanced with greater articulation between Associate and Baccalaureate degree programs.

Outreach. The outreach, service and Land-Grant mission are vitally important to the Thompson School. Currently the Thompson School provides considerable service in the agricultural sector of our state as well as other discipline areas the school supports. Outreach is a key function of the TSAS faculty.

Future Focus

The Thompson School as one of the four academic units of the college sees itself working with its own strategic plan to assist in accomplishing the goals set forward in COLSA's Strategic Plan. The Thompson School will contribute to many aspects of strategic accomplishment (Goals 1, 3 and 5) and especially to the new COLSA Agriculture agenda.

Synergies

The Thompson School sees opportunities for connections and collaborations with the new programmatic alignment of Agriculture as well as with the other departments where TSAS programs currently overlap.

Key Linkages

COLSA Programs: Nutritional Sciences; Environmental Horticulture; Dairy Management, Equine Science, Forestry; Sustainable Communities

COLSA Departments: Molecular, Cellular and BioMedical Sciences*; Animal & Plant Systems*; Natural Resources & Sustainable Communities*

UNH: WSBE; HHS & CEPS; Cooperative Extension; UNH-Manchester

AG: Current - Environmental Horticulture, Dairy Management, Equine Science as well as outreach components. Envisioned – agritourism, sustainable and organic components of agriculture focused majors.

External: AgrowKnowledge, the National Center for Agriscience and Technology, New Hampshire Community and Technical Colleges, and regional post-secondary programs.

Summary

The Thompson School of Applied Science is and will continue to be a strong and integral part of the College of Life Sciences and Agriculture while maintaining its own unique mission and academic focus. The faculty and staff of this academic unit have a vested interest in the success of COLSA for our students and our academic endeavors. We are eager to participate in the implementation of the COLSA Strategic Plan as well as the development of the new college structure both of which are required to position COLSA for vigor as the college progresses through the 21st century.

Agriculture

Rationale

Agriculture in the 21st century encompasses disciplines in all departments in the college and Thompson School. Integral components of agricultural programs include genetics/genomics, biochemistry, microbiology, nutrition, bioscience and technology, pre-vet medicine, plant biology, animal science, marine and freshwater biology, equine sciences, dairy management, horticulture, ecology, sustainability, environmental conservation, community development, forestry, environmental sciences, economics and business management.

In the proposed academic program model (Exhibit 1), agriculture is viewed as an overlapping program with faculty from each department and the Thompson School sharing teaching, research and outreach responsibilities. In the administrative view, Agriculture is a centrally administrated unit that comprises the Agricultural Experiment Station (AES), farm and woodlands management, as well as Agricultural academic program coordination. This proposed model is in contrast to a traditional departmental concept where agriculture is limited to applied plant and animal sciences and isolated from other disciplines in life sciences, natural resources and social sciences.

Impact

Teaching. The model proposed will strengthen and enrich existing agriculture curricula of the college and spawn study in new topics by involving the varied disciplines in life sciences and natural resources in academic program planning and development.

Research. Central coordination of Agriculture, with AES at the core, will foster the development of multidisciplinary initiatives that integrate basic and applied research. This will potentially lead to greater and more efficient utilization of farms, greenhouses, woodlands and other shared facilities. The proposed structure will promote research in the college that is more aligned with federal and state program goals and with the needs of the private sector.

Outreach. This structure will make the ties between academic and research endeavors with outreach more transparent to citizens of the state. As a result, benefits to stakeholders will produce the feeling that COLSA is “their college.” In addition, Agriculture as a college-wide program brings it in closer alignment with Cooperative Extension’s broad-based educational efforts.

Future Focus

The proposed structure aligns well with the strategic plan of the college, the scope of AES programs, and USDA funding opportunities. The proposed model will promote a greater symbiotic relationship among agriculture, life sciences, natural resources and the Thompson School, and enhance partnerships outside the college.

Synergies

Coordination of agricultural research and teaching programs across departments should foster new strategies for research investigations and development of curricula that will span from basic to applied, across species, and along the food chain. Centralized management of resources, such as the farms, forest land and marine facilities, should allow for more efficient use and greater utilization by college programs.

Key Linkages

COLSA Programs & Departments: All departments and the Thompson School, Office of Sustainability, farms, woodlands, marine facilities

UNH: Cooperative Extension, Sea Grant, the Marine Program, CEPS, HHS, WSBE, UNH Foundation

External: Federal and state agencies and organizations, foundations, other colleges and universities (including Land Grant institutions)

Summary

With strong and effective leadership, the proposed structure will facilitate the growth of agricultural programs in the university. Potentially UNH agricultural programs would be the strongest in New England fully integrating basic and applied sciences.

Part IV. Proposed Timeline for Adopting Re-organizational Structure

The following timeline provides activities and decisions required for adoption and implementation of the academic program and administrative structure models proposed in this report. There are many details to be worked out. This timeline will be clarified and may be adjusted after additional conversations with faculty in the months ahead (Spring Term, 2007) if the proposed structures are adopted.

What	Who	When
Complete re-organization proposal and distribute to faculty & staff	SPC	1/19/2007
SPC holds informational sessions for COLSA faculty and staff	SPC	1/23, 1/25, & 1/30/2007
Faculty and staff voting on re-organization proposal completed by 5:00 PM	Coordinated by SPC Tri-chairs	1/30/2007
Votes counted and results distributed to faculty & staff	Coordinated by SPC Tri-chairs & Tina Sawtelle	1/31/2007
Send re-organization proposal w/ faculty & staff vote results to the Provost	SPC Tri-chairs	1/31/2007
UNH Administration reviews COLSA proposal, asks SPC for clarification	Interim President & Provost	3/1/2007
Interim President & Provost request USNH BOT approval on new COLSA re-organization plan	Interim President/Provost & SPC	4/19/2007
COLSA holds set of planning meetings to begin implementation of the Strategic Plan and the new academic program and administrative structures	SPC	Spring, 2007
New COLSA Dean begins appointment (est.)		7/1/2007
Hold faculty meeting to discuss process for selecting new departmental homes	Faculty, Chairs & Dean	Early Fall, 2007
Faculty select new departmental homes	Faculty & Chairs	Early Fall, 2007
New department chairs nominated, elected by faculty & appointed by the Dean	Faculty & Dean	Fall, 2007
Faculty finalize department names	Faculty	Fall, 2007
College bylaws reviewed and rewritten	Faculty	Fall, 2007
Seek faculty approval for new college bylaws	Faculty	Fall, 2007
Hold faculty program meetings to outline new and revise existing academic program offerings, academic program coordination, new research and outreach opportunities & priority for faculty hires for each department	Faculty & Chairs	Fall, 2007
Academic program offerings and academic program coordination finalized by each academic unit and the college	Dean, Chairs & Faculty	Winter, 2008
Develop re-organization implementation plan for budgets, space moves, staff assignments	Dean, Chairs, Faculty & Dir of BSC.	Summer, Fall, 2007 & Winter, 2008

Appendices

Appendix 1: Undergraduate Programs - Administrative and Program Responsibility

Undergraduate Major	Animal & Plant Systems	Molecular, Cellular & Biomedical	Natural Resources & Sustain. Comm.	TSAS	AG
Applied Animal Sciences: Dairy Mgt.	▲			■▲	A
Applied Animal Sci: Equine Mgt.	▲			■▲	A
Applied Animal Sci: Small Animal Care				■▲	A
Applied Business Mgt.				■▲	A
Biochemistry		■▲			A
Biosciences/technology	▲	■▲			A
Civil Technology				■▲	
Community Leadership				■▲	
Community & Environmental Planning			■▲		A
Dairy Management	■▲				A
Ecology, Evolution & Behavior	▲	▲			A
Env. Science			■▲		
Env. Sci: Ecosystems			■▲		A
Env. Sci: Hydrology			■▲		
Env. Sci: Soil & Water			■▲		A
Env. Economics			■▲		A
Env. Hort.	■▲			▲	A
Environmental Conservation Studies			■▲		A
Equine Sciences	■▲			▲	A
Foodservice Mgt: Restaurant Mgt.				■▲	
Foodservice Mgt.: Diet.Tech.	▲	▲		■▲	
Forestry			■▲	▲	A
Forest Technology			▲	■▲	A
General Biology	▲	▲			A
Genetics/Genomics		■▲			A
Horticulture Tech: Landscape Mgt.	▲			■▲	A
Hort. Tech: Gen. Ornamental Hort.	▲			■▲	A
Marine and Freshwater Biology	■▲				A
MedLab Sciences	▲	■▲			
Microbiology		■▲			A
Molecular, cellular, & developmental biology		■▲			A
Nutrition Sciences	▲	■▲			A
Plant Biology	■▲	▲			A
Pre-Vet	▲	■▲			A
Tourism			■▲		A
Wildlife Ecology			■▲		
Zoology (BA/BS)	■				A

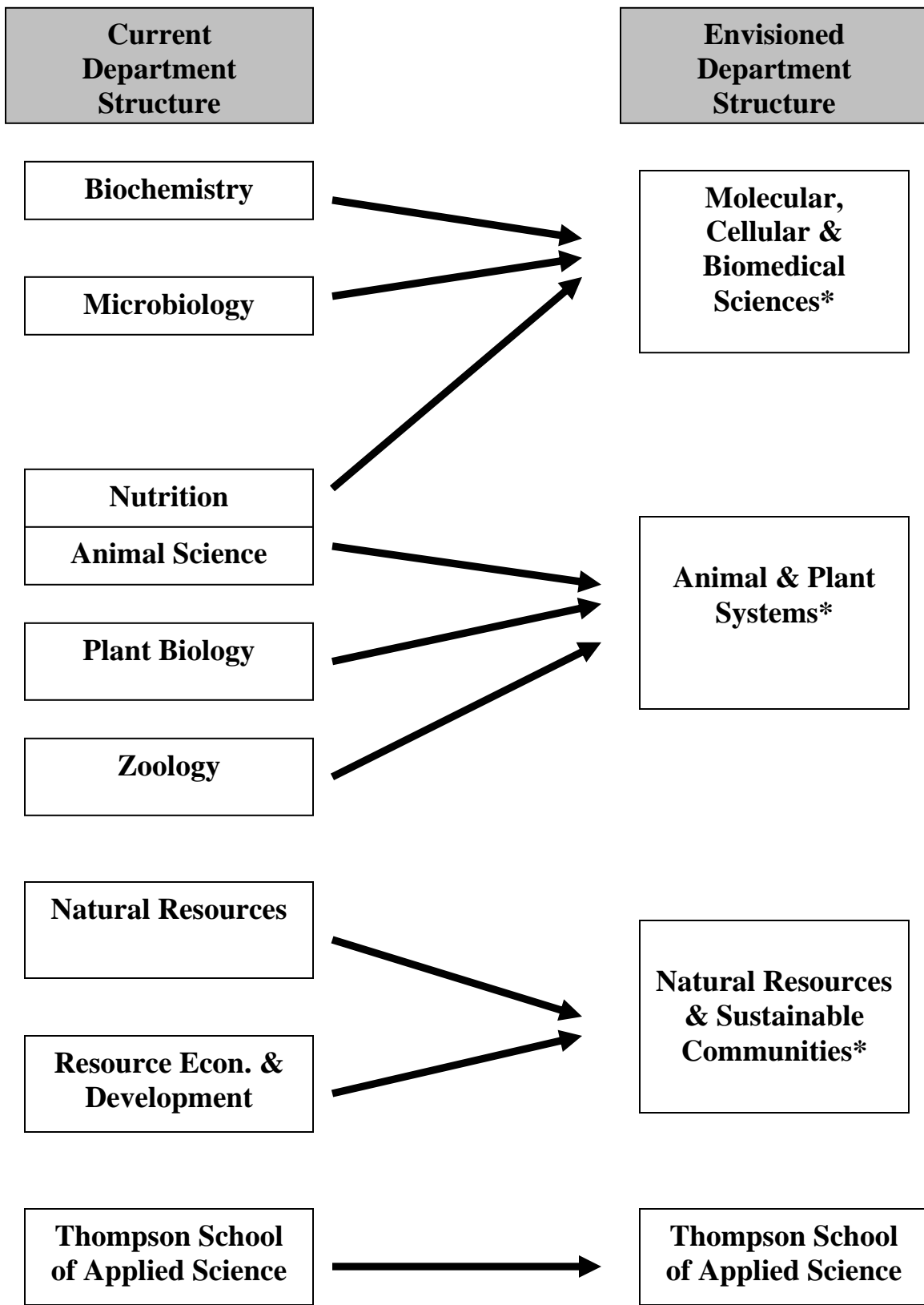
LEGEND:		
Administrative responsibility		■
Program responsibility		▲
Agriculture programs		A

Appendix 2: Graduate Programs - Administrative and Program Responsibility

Graduate Program	Animal & Plant Systems	Molecular, Cellular & Biomedical (MCB)	Natural Resources & Sustainable Communities	AG
Animal and Nutritional Sciences (PhD)	■▲	▲		A
Animal Sciences (MS)	■▲	▲		A
Biochemistry (MS, PhD)		■▲		
Environmental Conservation (MS)			■▲	
Env. Ed. (MA)			▲*	
Forestry (MS, MF)			■▲	
Genetics (MS, PhD)	■▲	■▲		
Microbiology (MS, PhD)		■▲		
Natural Resources (MS)			■▲	A
NRESS (PhD)			▲*	
Nutritional Science (MS)		■▲		
Plant Biology (MS, PhD)	■▲			A
Resource Admin & Mgt. (MS)			■▲	A
Resource Economics** (MS)			■▲	
Soil Science (MS)			■▲	
Water Resources (MS)			■▲	
Wildlife (MS)			■▲	
Zoology (MS, PhD)	■▲			
**program to be phased-out			*shared with non-COLSA departments	

LEGEND:		
Administrative responsibility		■
Program responsibility		▲
Agriculture programs		A

Appendix 3: Current Departments and Proposed Future Academic Units



Appendix 4: Estimates on Faculty & Student Distributions Across New Departments

COLSA Re-organization

Estimates on Faculty & Student
Distributions Across New Departments

	Natural Resources & Sustainable Communities	Animal & Plant Systems	Molecular, Cellular & Biomedical	Thompson School of Applied Science	Totals	
Tenure Track Faculty <i>Fall 06</i>	24	29.5	26.5	20	100	Note 1
Non TT Faculty <i>Fall 06</i>	17	13	15.5	0	45.5	
Undergrad Enrollments/Major <i>Fall 06</i>	286	527	737	405	1955	Note 2
Number Undergrad Degree Programs <i>Fall 06</i>	8	10	7	7	32	
Undergrad Credit Hours <i>CY 05-06</i>	13595	14997	16067	12102	56761	Note 3
Grad Enrollments/Major <i>Fall 06</i>	106	76	59	0	241	Note 4
Number Grad Degree Programs <i>Fall 06</i>	8	6	7	0	21	

Note 1: Assumes 7 nutritionists from ANSC + ~5 ZOOL or P BIO faculty go to MCB

Note 2: MCB dept includes Mol, Cell & Dev BIOL majors, APS dept includes undeclared majors, Gen BIOL majors
split 50-50% between APS and MCB

Note 3: Distribution of credit hrs is just an estimate, degrees such as BioSc & Tech, BIOL degrees, dairy, equine may not be distributed

accurately to new home dept

Note 4: Includes intercollege NRESS grad students who are advised by NR faculty.

Biology Figures

7098 credit hrs in CY 05-06 (distributed between Animal & Plant Systems & Molecular, Cellular & Biomedical)

23 Ecol, Evol & Beh BIOL majors (assigned to Animal & Plant Systems)

300 Gen BIOL majors (See Note 2)

113 Mar & Frsh BIOL majors (assigned to Animal & Plant Systems)

60 Mol, Cel, & Dev BIOL majors (assigned to Molecular, Cellular & Biomedical Sciences)

Appendix 5: COLSA Structure Re-design Criteria

January 10, 2007

Responsiveness to Current & Future Students	Academic Program Excellence
<ul style="list-style-type: none"> • Program offering clarity • Course content coordination & integration • Greater involvement of UG students in research activities • Advising quality & timeliness • Degree requirements aligned with employer expectations of ‘profession ready’ • Increased focus on student recruitment – graduate and undergraduate • Stronger ties to 2+2 articulation agreements especially with the Thompson School • Program quality consistency for UG majors and minors and within graduate program offerings 	<ul style="list-style-type: none"> • Recruitment & retention of top quality faculty members teaching in nationally-recognized academic programs as the primary driver of student recruitment, retention and professional preparedness • Development of new degree programs and course offerings • Increased cross-disciplinary and cross-departmental program and course offerings • Increased focus on graduate education • Attract more teaching improvement funding • Closer linkages between COLSA program offerings and activities of K-12 education

<p style="text-align: center;">Research Productivity & Excellence</p>	<p style="text-align: center;">Outreach, Cooperative Extension & Public Service Capacity</p>
<ul style="list-style-type: none"> • Recruitment and retention of top quality research faculty • Focus on strategic opportunities for increasing sponsored research • Increased synergy and collaboration between faculty and research programs • Development of cross-college and regional research initiatives • Effective recruitment of graduate students • Greater focus on research partnerships with government and the private sector • Increased opportunities for faculty and staff professional growth and development 	<ul style="list-style-type: none"> • Increased integration of Cooperative Extension capacity into COLSA academic and research activities • Better coordinated response to New Hampshire citizens, communities and businesses requesting COLSA resources and capabilities • Increased understanding of the value COLSA creates for the state and region

<p style="text-align: center;">Effective Shared Governance and Administrative Processes</p>	<p style="text-align: center;">Efficient Resource Utilization</p>
<ul style="list-style-type: none"> • Faster, more efficient and informed decision-making • Resource accountability at the departmental level • Workload equity between departmental units • Reduction of administrative barriers to innovation and change • Improvement in communication quality and understanding of COLSA programs at all college levels • Coordinated capital campaign • Informed decisions based on shared governance 	<ul style="list-style-type: none"> • Clear allocation of scarce resources to areas of strategic opportunity • Reduced administrative overhead costs • Ongoing balanced budget • Strategic focus for new hires based on COLSA Strategic Plan • Core facilities managed as college and UNH resources • Potential consolidation of required space and UNH rental cost charges

Appendix 6: COLSA Attendees at College-Wide Feedback Gathering Sessions

Faculty	January 11, 2007	January 12, 2007
Larry Harris, Zoology	X	
Barry Corriveau, Animal Science, MLS	X	X
Joyce Stone, AnSci, MLS	X	X
Catherine Violette, AnSci, Coop. Ext.	X	
Win Watson, Zoology	X	X
Ted Howard, DNR	X	X
Suzanne Booska, COLSA Dean's Office	X	
Jessica Bolker, Zoology	X	
Subhash Minocha, Plant Biology	X	
Curt Givan, Plant Biology	X	
Gale Carey, AnSci	X	X
Joe Moore, AnSci, NHVL		X
Cathy Neal, Plant Biology, Coop. Ext.		X
George Hurtt, DNR	X	
Marian Litvaitis, Zoology	X	
Rick Cote, BMB	X	X
Stacia Sower, BMB	X	X
Jeff Schloss, Zoology/Ext.	X	
Bob Taylor, ANSC	X	X
Michelle Scott, Zoology	X	
David Berlinsky, Zoology	X	
Joanne Curran-Celentano, ANSC	X	
Name ?, Zoology	X	
John Litvaitis, DNR	X	
Alberto Manalo, COLSA Dean's office		X
Gretchen Forbes, COLSA Dean's office		X
Lisa Townson, Coop. Ext.		X
Jim Grady, Coop Ext.		X
Jonathan Pennock, DNR Marine Program		X
Colette Janson-Sand, AnSci		X
Drew Conroy, Thompson School		X
Peter Erickson, AnSci		X
Mark Ducey, DNR		X
Lou Tisa, Microbiology		X