Executive Summary

Request for Authorization to Implement (Undergraduate Minor in Real Estate)

<table>
<thead>
<tr>
<th>Requested by</th>
<th>School of Landscape Architecture and Planning (CAPLA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIP Code</td>
<td>04.1001, Real Estate Development</td>
</tr>
</tbody>
</table>

**Purpose of Program**
The purpose of the Real Estate minor is to prepare undergraduate students to create and sustain value across multiple types of firms within the real estate industry. The four-course core builds fundamental skills at the beginning of a student’s trajectory of study in the minor and provides an opportunity for application at its end. The core provides introductions to major concepts, strategies, and empirical analytical techniques in residential and commercial real estate. It also confronts major issues in the property markets including sustainability and resilience. The electives in the curriculum facilitate student curiosity in topics complementary subject areas. Real Estate minor core course faculty are award winning thought leaders who have significant experience and history of engagement with both real estate research and practice. Students who complete the minor will be prepared to work at a variety of real estate firms across an array of sizes and asset classes. Students will master skills demanded by the market place and learn from practitioners through cases, presentations, projects, and networking events. They will be prepared to take state level real estate sales licensing exams and will have the opportunity to pursue Argus Certification.

<table>
<thead>
<tr>
<th>5-year projected annual enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year</td>
</tr>
<tr>
<td>25</td>
</tr>
</tbody>
</table>

**Source(s) of Funding**
RCM Revenue

**Approvals:**
ABOR
Undergraduate Council
CAAC
Faculty Senate

For use by Curricular Affairs:
- Create approval memo
- Send memo to college/dept and acad_org listserv
- Create UAccess Plan Table code(s) (secondary?)
- Upload approval memo and proposal documents to UAccess Plan Table
- Notify acad_org of the plan code creation
- Notify ADVIP team
- Update API, if necessary
New Academic Program Workflow Form

General

Proposed Name: Real Estate
Transaction Nbr: 00000000000062
Plan Type: Minor
Academic Career: Undergraduate
Degree Offered:
Do you want to offer a minor? N
Anticipated 1st Admission Term: Sprg 2021

Details

Department(s):

ARCH

<table>
<thead>
<tr>
<th>DEPTMNT ID</th>
<th>DEPARTMENT NAME</th>
<th>HOST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1005</td>
<td>School of Landscape Architecture and Planning</td>
<td>N</td>
</tr>
<tr>
<td>2523</td>
<td>Planning</td>
<td>Y</td>
</tr>
</tbody>
</table>

Campus(es):

MAIN

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>TUCSON</td>
<td>Tucson</td>
</tr>
</tbody>
</table>

Admission application terms for this plan: Spring: Y Summer: N Fall: Y

Plan admission types:

Freshman: Y Transfer: Y Readmit: Y Graduate: N
Non Degree Certificate (UCRT only): N
Other (For Community Campus specifics): N

Plan Taxonomy: 04.1001, Real Estate Development.
Conditions for Admission/Declaration for this Major:

Current U of A undergraduate students may pursue a minor and have it recognized on their transcript at graduation. Students interested in pursuing a minor should consult their academic advisor and meet with a CAPLA advisor to declare the minor and to ensure that an appropriate set of courses is taken. Minor requirements appear on the degree audit once the minor is added. Courses taken for the minor may not count toward both the major and the minor. Students should contact their academic advisor for more information. To earn credit for the minor, students must an average of 2.75 GPA in minor specific courses. Courses taken for the minor may not count toward both the major and the minor.

Requirements for Accreditation:

NA. No accrediting body.

Program Comparisons

University Appropriateness

Presently, the U of A offers a Masters of Real Estate Development program both in-person and on-line. Where there are more than 1000 recent graduates of undergraduate programs in the commercial real estate industry (and scores more in residential brokerage), there is a noticeable gap and demand for undergraduate focused real estate coursework. With growing demand from students and strong support from the regional real estate community, the proposed minor is poised to meet both student and employer demand. Moreover, with the Built Environment as a strong pillar of the new strategic plan, the proposed minor hews closely to it and aligns teaching and research with the long-term vision of success at the U of A.

Arizona University System

<table>
<thead>
<tr>
<th>NBR</th>
<th>PROGRAM</th>
<th>DEGREE</th>
<th>#STDNTS</th>
<th>LOCATION</th>
<th>ACCRDT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Real Estate Minor</td>
<td></td>
<td>0</td>
<td>Arizona State Univ - Tempe</td>
<td>N</td>
</tr>
</tbody>
</table>

Peer Comparison
The proposed RE Minor is quite similar in design, content, and goals to minors at both the University of Florida and the University of Washington—two world class programs. Students in each minor, including ours, are challenged to engage the basic contours of the residential and commercial real estate industries and markets. They also have opportunities to develop the analytical skills both in core and elective courses that will help them to create value across an array of job and firm typologies. With respect to requirements, each of the three minors is similar in terms of the minimum number of hours required and logistics for declaration and minimum grade point averages within minor coursework. The principal difference between our minor framework of our peers is that we prescribe a tighter list of required courses. In part, this represents our unique blend of courses and faculty. It also represents the fact that our RE program is relatively young. Where the other two programs have existed for quite some time, have a deeper roster of faculty teaching in the space, and have very strong institutional partnerships that sustain them, we are only just beginning to develop and nurture these here. These differences are not expected to manifest in terms of student success. We anticipate that the high quality course designs and instructors at the University of Arizona will be able to urge students towards satisfying their intellectual curiosities and creating terrific professional opportunities.

Faculty & Resources

Faculty

Current Faculty:

<table>
<thead>
<tr>
<th>INSTR ID</th>
<th>NAME</th>
<th>DEPT</th>
<th>RANK</th>
<th>DEGREE</th>
<th>FCLTY/%</th>
</tr>
</thead>
<tbody>
<tr>
<td>22085077</td>
<td>James Marian</td>
<td>2523</td>
<td>Adj. Lect.</td>
<td>Master Real Est Dev</td>
<td>30.00</td>
</tr>
<tr>
<td>10701203</td>
<td>Gary Pivo</td>
<td>2523</td>
<td>Professor</td>
<td>Doctor of Philosophy</td>
<td>10.00</td>
</tr>
<tr>
<td>22061992</td>
<td>Arthur Nelson</td>
<td>2523</td>
<td>Professor</td>
<td>Doctor of Philosophy</td>
<td>20.00</td>
</tr>
</tbody>
</table>

Additional Faculty:

No additional faculty are anticipated.

Current Student & Faculty FTE

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>UGRD HEAD COUNT</th>
<th>GRAD HEAD COUNT</th>
<th>FACULTY FTE</th>
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</thead>
<tbody>
<tr>
<td>2523</td>
<td>0</td>
<td>30</td>
<td>10.23</td>
</tr>
</tbody>
</table>

Projected Student & Faculty FTE

<table>
<thead>
<tr>
<th>DEPT</th>
<th>YR 1</th>
<th>YR 2</th>
<th>YR 3</th>
<th>YR 1</th>
<th>YR 2</th>
<th>YR 3</th>
<th>YR 1</th>
<th>YR 2</th>
<th>YR 3</th>
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<tr>
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<td>25</td>
<td>49</td>
<td>71</td>
<td>67</td>
<td>74</td>
<td>82</td>
<td>10.23</td>
<td>10.23</td>
<td>10.23</td>
</tr>
</tbody>
</table>
Library

Acquisitions Needed:

None anticipated.

Physical Facilities & Equipment

Existing Physical Facilities:

With average class sizes envisioned in the 20-30 student range for most courses and an average of 50 students for the Principles of Real Estate course, the existing classroom facilities at CAPLA are adequate with respect to size, capacity, and technology for each of the core courses. Where the additional electives are all existing courses, the adequacy of those existing facilities attendant to the delivery of the courses is not under threat. To the extent that enrollments in the minor grow substantially beyond levels anticipated in the proposal, CAPLA has a limited number of spaces that could accommodate larger classes and would need assistance from the broader university to create successful learning spaces for the minor core courses.

Additional Facilities Required & Anticipated:

None anticipated.

Other Support

Other Support Currently Available:

The School of Landscape Architecture and Planning has several full-time and part-time staff members who devote their time to all programs in the school:
Administrative Assistant: Works immediately under the director and handles course management and scheduling; Promotion and Tenure packets; travel authorizations and disbursement vouchers for faculty; event coordination; and other administrative duties for the school as they arise.
Program Coordinator - Laura Jensen, MLA: Provides a wide variety of administrative support for all school programs.
Assessment Coordinator - Kelly Eitzen Smith, PhD: Collects program and student data and oversees and coordinates the assessment of all programs in the school for outside accrediting bodies as well as for internal University of Arizona program assessment.
Student worker: The programs in the school share a work-study student who works 20 hours per week, and is available to provide assistance with organizational and office related tasks as needed.
CAPLA staff:

CAPLA has three undergraduate advisors and one graduate coordinator to support students.
Senior IT Manager - Lucas Guthrie and Senior IT Support Analyst - Adam
Katz: Manage and maintain CAPLA's IT infrastructure and equipment and manage student IT staff.

Business office staff: Assistant Dean of Finance and Administration - Simon White: Focuses on business development and identifying funding sources necessary to meet the college and university missions. Simon has worked at the University of Arizona for 15 years in a variety of departments holding financial and business positions.

Analyst, Data and Financial - Jeff Guba, MBA: Provides CAPLA with various types of reports relating to financial and student data. He also provides critical analysis support relating to a range of business areas (i.e. accounting).

Accountant: Provide support to the CAPLA community relating to accounting, human resources, and other important business areas.

Development and Alumni Relations staff: Development Director: Directs and manages the identification, qualification, cultivation, and solicitation of major individual, corporate, and foundation prospects in support of CAPLA.

Director of Alumni and Community Engagement: Develops and maintains relationships with CAPLA alumni and donors by organizing alumni and scholarship events, maintaining contact with alumni and donors through newsletters and direct communication. Kay is the main point of contact for CAPLA alumni.

Marketing Manager: Works in conjunction with the dean, associate dean, directors, faculty, program coordinators, and other related staff in the coordination of marketing and promotional materials and efforts.

Recruitment Coordinator: Responsible for college-wide student recruitment efforts.

Associate Dean for Research and Academic Affairs - Barbara White Bryson, EdD, FAIA: Coordinates promotion and tenure activities, holds research workshops, oversees building operations, and manages studio and office assignments for students, faculty, and staff. These individuals work well as a team committed to all programs in the college.

Dean Nancy Pollock-Ellwand, who holds degrees in Landscape Architecture (BLA), Architecture (MA), and Planning (PhD), the college and the school are well supported and staffed, thus ensuring the attainability of program mission and goals.

Other Support Needed over the Next Three Years:

None anticipated.

Comments During Approval Process

6/3/2020 3:56 PM
LJOHNSON

<table>
<thead>
<tr>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved.</td>
</tr>
<tr>
<td>Date/Time</td>
</tr>
<tr>
<td>----------------------</td>
</tr>
<tr>
<td>6/9/2020 1:16 PM</td>
</tr>
<tr>
<td>6/30/2020 6:50 PM</td>
</tr>
<tr>
<td>6/30/2020 6:50 PM</td>
</tr>
</tbody>
</table>
I. MINOR DESCRIPTION
The purpose of the Real Estate minor is to prepare undergraduate students to create and sustain value across multiple types of firms within the real estate industry. The four-course core builds fundamental skills at the beginning of a student’s trajectory of study in the minor and provides an opportunity for application at its end. The core provides introductions to major concepts, strategies, and empirical analytical techniques in residential and commercial real estate. It also confronts major issues in the property markets including sustainability and resilience. The electives in the curriculum facilitate student curiosity in topics complementary subject areas. Real Estate minor core course faculty are award winning thought leaders who have significant experience and history of engagement with both real estate research and practice. Students who complete the minor will be prepared to work at a variety of real estate firms across an array of sizes and asset classes. Students will master skills demanded by the market place and learn from practitioners through cases, presentations, projects, and networking events. They will be prepared to take state level real estate sales licensing exams and will have the opportunity to pursue Argus Certification.

Additional Information: The minor is designed to provide students with a set of core real estate knowledge and coursework that can be paired with recommended electives both in and out-side of the College of Architecture, Planning, and Landscape Architecture (CAPLA), the home of the Masters in Real Estate Development Program. The recommended electives help students to explore and combine additional real estate and real estate adjacent courses from their home colleges, from with CAPLA, or other coursework for which they meet the pre-requisites or admissions requirements. The objective of this format is to facilitate the integration of the technical skillsets from real estate and the built environment (a University strategic plan pillar area) into students’ educational pathways. Students will be permitted to double-dip on their minor electives in such a way that they can easily explore real estate and acquire specific conceptual and analytical skills as part of their path to graduation and employment.
II. **NEED FOR THE MINOR/JUSTIFICATION**—provide market analysis data or other tangible evidence of the need for and interest in the proposed minor. This might include results from surveys of current students, alumni, and/or employers or reference to student enrollments in similar programs in the state or region. Curricular Affairs can provide a job posting/demand report by skills obtained/outcomes of the proposed minor. Please contact Martin Marquez to request the report for your proposal.

Over the last six years, evidence of demand for a real estate minor comes from three sources: 1) enrollment in PLG 476: The Land Development Process and RED 401/501: Introduction to Real Estate Finance; 2) requests to enroll in upper division MRED courses by second and third year students; and 3) engagement with the student Commercial Real Estate Club. Speaking to the first signal, enrollment in the Land Development process has been consistent in the 25-30 student range with the vast majority of students coming from outside the MRED program. Similarly, the Introduction to Real Estate Finance has drawn 30-50% of its enrollment from fourth year undergraduate students for the last several years. Complementary with the enrollment figures are consistent signals from across the university from second and third year students wishing to enroll in MRED courses. Approximately 10 students from Engineering, Business/Economics, and Geography regularly request permission to take 500 level MRED courses. Finally, the CRE Club is a ~60-member organization whose presidents have, over the last several years, reported that most, if not all, club members would enroll in (or would have enrolled in) a real estate minor if such a systematic approach to real estate coursework was available at the undergraduate level. During a recent lecture to the club, 60+ students confirmed that message to an MRED faculty member. Indeed, a database created by the CRE Club indicates that there are more than 1,000 University of Arizona graduates working in commercial real estate.

These informal demand signals are congruent with evidence from the formal analyses conducted by the Office of Curricular Affairs relative to jobs in the real estate development sector both in Arizona and nationally. This work indicates strong present employment demand. Additionally, these analyses suggest the potential of significant employment growth over time at both geographies (see Appendix B for Validate Reports). Important for consideration is the alignment of potential enrollment in the minor with existing and projected job demand. In Arizona, for example, there were ~3,700 job listings related to real estate development in the last year and this sector is projected to grow. It would be untenable to expect each of the Arizona state universities to be able to service that demand alone; which is a signal the minor will serve the market in a positive fashion.

Additional evidence speaking to the need for this program comes from local and regional employers and business owners. The attached letters offer insight into the desirability of students with real estate and other adjacent related knowledge who
can add value immediately into real estate firms. This suggests that students with majors in urban and business-related fields and a minor fit the needs of modern real estate firms (see Appendix C).

Together, these signals suggest that there is consistent demand for undergraduate focused real estate coursework. When that coursework linked together in the form of a minor, it would provide additional value to students as a recognized pathway to enhance existing majors such as Economics, Finance, Marketing, Mining, Civil Engineering, Urban & Regional Development, and Sustainable Built Environments.

In this context, we propose the Real Estate Minor to meet demand and to help curious and ambitious students to gain skills and capacity to add value across an array of firms and jobs.
III. **MINOR REQUIREMENTS**— complete the table below by listing the minor requirements, including minimum number of credit hours, required core, electives, and any special requirements. Note: information in this section must be consistent throughout the proposal documents (comparison charts, curricular/assessment map, etc.).

<table>
<thead>
<tr>
<th><strong>Minimum total units required</strong></th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minimum upper-division units required</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>Total transfer units that may apply to minor</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>List any special requirements to declare/admission to this minor</strong> (completion of specific coursework, minimum GPA, interview, application, etc.)</td>
<td>Meet with individual &amp; CAPLA advisors to declare, Min 2.75 in core</td>
</tr>
</tbody>
</table>
| **Minor requirements. List all required minor requirements including core and electives. Courses listed must include course prefix, number, units, and title. Mark new coursework (New). Include any limits/restrictions needed (house number limit, etc.). Provide email(s)/letter(s) of support from home department head(s) for courses not owned by your department.** | **RE Minor Core (15 hours):**  
- (New) RE 3XX: Introduction to Real Estate  
- RED 407: Survey of Responsible RE Development  
- RED 401: Introduction to Real Estate Finance  
- RED 476: Land Development Process  
- RED 498: Professional Projects in Real Estate  
**RE Minor Electives (at least 3 hours):**  
*Please see Section IV for elective list.* |
| **Internship, practicum, applied course requirements (Yes/No). If yes, provide description.** | Yes, RED 498: Professional Projects in Real Estate. RED 498 provides students with the chance to apply the skills and knowledge gained in required and elective minor courses to a professional practice exercise sponsored by a real estate firm. The course asks students to analyze a real estate development or investment opportunity and to provide professional advice to a client/within firm executive. Local firms will provide feedback to the student and to the program to create double loop learning outcomes. |
| **Additional requirements (provide description)** | N/A |
| **Any double-dipping restrictions (Yes/No)? If yes, provide description.** | No, minor coursework may double dip with other electives, minor, or certificate requirements. Courses taken for the minor may not count toward both the major and the minor. |
IV. **CURRENT COURSES**—using the table below, list all existing courses included in the proposed minor. You can find information to complete the table using the [UA course catalog](#) or [UAnalytics](#) (Catalog and Schedule Dashboard> “Printable Course Descriptions by Department” On Demand Report; right side of screen). If the courses listed belong to a department that is not a signed party to this implementation request, upload the department head’s permission to include the courses in the proposed minor and information regarding accessibility to and frequency of offerings for the course(s). Upload letters of support/emails from department heads to the “Letter(s) of Support” field on the UAccess workflow form. Add rows to the table, as needed.

<table>
<thead>
<tr>
<th>Course prefix and number (include cross-listings)</th>
<th>Units</th>
<th>Title</th>
<th>Course Description</th>
<th>Pre-requisites</th>
<th>Modes of delivery (online, in-person, hybrid)</th>
<th>Typically Offered (F, W, Sp, Su)</th>
<th>Dept signed party to proposal? (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED 401</td>
<td>3</td>
<td>Introduction to Real Estate Finance</td>
<td>The focus of this course is the analysis of capital formation in commercial real estate and examination of the tools real estate investors use to make investment decisions. The course includes sections on capital sources, investor concerns and hurdles, data sources, investment fundamentals and tools, discounted cash flow modeling, and pre-tax equity distributions for a range of partnerships.</td>
<td>None</td>
<td>In Person/hybrid</td>
<td>S</td>
<td>Yes</td>
</tr>
<tr>
<td>Course Code</td>
<td>Units</td>
<td>Title</td>
<td>Description</td>
<td>Mode</td>
<td>In Person/hybrid</td>
<td>Offered</td>
<td>Prerequisites</td>
</tr>
<tr>
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<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td>RED 476</td>
<td>3</td>
<td>Land Development Process</td>
<td>A case-oriented approach to site selection, rezoning, financing, architectural design, economic feasibility, and other facets of the land development process.</td>
<td>None</td>
<td>In Person/hybrid</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>RED 407</td>
<td>3</td>
<td>Survey of Responsible Real Estate Development</td>
<td>There is an interest in assuring that real estate development of the future is more socially, environmentally, and economically responsible than in the past. Emerging research shows that responsible real estate development can produce competitive short-term and superior long-term financial returns. This introductory course will review sweeping changes occurring in real estate development.</td>
<td>None</td>
<td>In Person/hybrid</td>
<td>F</td>
<td></td>
</tr>
<tr>
<td>RED 498</td>
<td>3</td>
<td>Professional Projects in Real Estate</td>
<td>This course provides an opportunity for Master of Real Estate Development students to engage in a culminating experience involving a substantive project which demonstrates a synthesis of learning including broadly comprehensive knowledge of a disciple, its methods, and processes. The student will</td>
<td>RED 401, RED 476</td>
<td>In Person/hybrid</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Course Title</td>
<td>Description</td>
<td>Prerequisites</td>
<td>Delivery</td>
<td>Grade</td>
<td>Core/Gen Ed</td>
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</tr>
<tr>
<td>SBE 301</td>
<td>4</td>
<td>Intro to Design Thinking</td>
<td>This course introduces students to the essential methods of visual communication and ordering systems through a series of interrelated exercises. Techniques such as investigative sketching, freehand drawing, and digital design communication are considered in relation to their potential to reveal the world around us with a heightened sense of awareness.</td>
<td>None</td>
<td>In Person</td>
<td>S</td>
<td>Yes</td>
</tr>
<tr>
<td>PLG/RED 421</td>
<td>3</td>
<td>Placemaking &amp; Urban Form</td>
<td>This course will introduce students to the fundamental concepts of urban design and urban form and the role these</td>
<td>None</td>
<td>In Person/hybrid</td>
<td>F&amp;S</td>
<td>Yes</td>
</tr>
<tr>
<td>SBE 221</td>
<td>3</td>
<td>History of the Built Environment</td>
<td>The study of the history of the built environment provides a general understanding on how human societies have adapted the form of the built environment to their unique cultural, political, economic, climatic, and environmental challenges across time.</td>
<td>None</td>
<td>In Person</td>
<td>F</td>
<td>Yes</td>
</tr>
</tbody>
</table>
play in placemaking in cities, towns and suburbs. The course will cover the work of urban design theorists, variables that impact a community's sense of place, challenges and opportunities in modern city design, and methods to design more livable and sustainable cities.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
<th>Description</th>
<th>Instructor</th>
<th>Delivery</th>
<th>Prerequisites</th>
<th>Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED 409</td>
<td>3</td>
<td>Due Diligence &amp; Entitlements</td>
<td>This course provides students a review of the legal principles that inform and regulate the due diligence and entitlement process that is the basis of every successful real estate transaction.</td>
<td>None</td>
<td>In Person/hybrid</td>
<td>F</td>
<td>Yes</td>
</tr>
<tr>
<td>RED 415</td>
<td>3</td>
<td>Construction &amp; Project Management</td>
<td>The objective of the course is to introduce real estate development students, and those from other majors and programs, to construction management as a component of the real estate development process. The course will introduce students to the fundamentals of building construction, project budget estimation, project management, scheduling, and project leadership. The course will focus both case analyses</td>
<td>None</td>
<td>In Person/hybrid</td>
<td>F&amp;S</td>
<td>Yes</td>
</tr>
</tbody>
</table>
and discussions of best practices.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
<th>Description</th>
<th>Prerequisites</th>
<th>Delivery Method</th>
<th>Grade</th>
<th>Elective</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED 485</td>
<td>3</td>
<td>Foundations of Economics for Planning and RE Development</td>
<td>This is a core course that focuses on suite of economic approaches that broaden planners' and developers' ability to make informed economic decisions from the perspective of the public sector.</td>
<td>None</td>
<td>In Person/hybrid</td>
<td>F</td>
<td>Yes</td>
</tr>
<tr>
<td>ALC 410</td>
<td>3</td>
<td>Entrepreneurial Leadership in Agriculture and the Life Sciences</td>
<td>This course is an exploration of the principles and practices of entrepreneurial leadership, and the application of such principles and practices within agricultural and rural communities, the cooperative Extension system, educational organizations and systems, agricultural agencies at the local, state, and federal levels, and agricultural enterprises and life sciences industries. Emphasis is placed on the knowledge and skills required to effectively lead change within and across organizations, communities,</td>
<td>None</td>
<td>In-Person</td>
<td>S</td>
<td>No</td>
</tr>
</tbody>
</table>
and settings that intersect the agricultural and life sciences fields.

**ALC 411**  
3  
Principles and Applications of Organizational Innovation  
This course provides an introduction to the principles and practices central to organizational innovation and leadership. Frameworks and methods for designing, developing, and implementing innovation within agricultural organizations and industrial settings and environments will be explored. The overarching goal of the course is to equip students with the perspective and skill base necessary to be leaders of innovation and change within agricultural organizations that extend across educational, public, governmental, and industrial settings and environments.  
None  
In-Person  
F  
No

**ALC 422**  
3  
Communicating Knowledge in Agriculture and the Life Sciences  
Principles and processes of knowledge diffusion and methods of transferring appropriate technology to user/clientele groups. Communicating effectively within organizations.  
None  
In Person  
F  
No

**CE 381**  
3  
Construction Engineering Management  
Provide an opportunity to develop an enhanced understanding of construction  
*Elective Specific  
In Person  
F & S  
No
industry and practices in preparation to contribute to construction firms, project management consultants, and owners upon graduation and to improve project delivery by understanding linkages between design and construction.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Course Title</th>
<th>Description</th>
<th>Credit Type</th>
<th>Delivery</th>
<th>Semester</th>
<th>Prerequisite</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE 482</td>
<td>3</td>
<td>Construction Project Planning, Scheduling, and Control</td>
<td>Develop an enhanced understanding of construction project planning, scheduling, execution, and control in preparation to contribute to construction firms, project management consultants, and owners upon graduation. Topics include network scheduling, critical path method, resource allocation, cost control, software applications to scheduling, and contract documents.</td>
<td>*Elective Specific</td>
<td>In Person</td>
<td>F &amp; S</td>
<td>No</td>
</tr>
<tr>
<td>CE 483</td>
<td>3</td>
<td>Construction Cost Estimating</td>
<td>Develop an enhanced understanding of quantity take-off and cost estimating of construction resources including materials, labor, and equipment. Skills and knowledge of cost estimating will provide preparation for builders and designers to contribute to construction</td>
<td>*Elective Specific</td>
<td>In Person</td>
<td>F &amp; S</td>
<td>No</td>
</tr>
</tbody>
</table>
firms, project management consultants, and owners upon graduation. Topics include: types of cost estimates; budget estimates; preconstruction services estimates; quantity take-off; self-performed work estimates; subcontractor work estimates; and bid preparation.

| ECON  | 301 | Micro Economic Analysis & Applications | The objective of this course is to familiarize you with core microeconomic foundations that will allow you to understand how various economic forces and phenomena emerge, how alternative economic institutions functions to allocate resources, how individuals and enterprises can best position themselves in various types of economic environments, and how government policy and external factors affect economic outcomes and welfare. | *Elective Specific | In Person | F | No |

| ECON  | 331 | Macro Economic Analysis & Policy | The purpose of the class is to provide students with a firm understanding of the structure and workings of the macro-economy; how macroeconomic variables such | *Elective Specific | In Person | F | No |
as national income, the price level, the unemployment rate, and interest rates are determined in various macroeconomic environments; and how government policies and the financial system can impact macroeconomic performance.

<p>| FIN 304 Real Estate Principles | FIN 304 Real Estate Principles is a practical seminar that covers real estate essentials including choosing real estate investment property, financing real estate investments, tax implications of real estate, managing real estate, and analyzing the real estate market. This is a web-based course, which means that students must be self-directed to be successful in mastering course requirements. | *Elective Specific | On-Line | F/S | No |
| FIN 460 RE Finance | Investment analysis of real estate. Sources and costs of financing. Secondary markets and government programs. | *Elective Specific | In Person | F &amp;S | No |
| GEOG 379 Urban Growth &amp; Development | Location patterns in urban areas and processes of growth; historical development of U.S. cities, rent theory, housing markets, commercial and residential, and governmental policy. | *Elective Specific | In Person | F&amp;S | No |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG</td>
<td>453</td>
<td>Locational Analysis</td>
<td>Industrial location theory and location factors, consumer travel behavior and market areas, geography of economic impacts, location of public facilities.</td>
<td>*Elective Specific</td>
<td>In Person</td>
<td>F</td>
<td>No</td>
</tr>
<tr>
<td>GEOG</td>
<td>454</td>
<td>Regional Analysis</td>
<td>Regionalization and geographic scale; spatial variation and well-being and development; multiplier analysis; demographic-economic models; theories of regional growth; regional policy.</td>
<td>*Elective Specific</td>
<td>In Person</td>
<td>S</td>
<td>No</td>
</tr>
<tr>
<td>POL</td>
<td>483</td>
<td>Urban Public Policy</td>
<td>Analysis and discussion of social, economic, and political problems and proposed solutions in changing urban environments.</td>
<td>*Elective Specific</td>
<td>In Person</td>
<td>F</td>
<td>No</td>
</tr>
</tbody>
</table>

**Note:** Additional coursework outside of recommended electives to be reviewed and approved by CAPLA advisors and faculty.
V. **NEW COURSES NEEDED** – using the table below, list any new courses that must be created for the proposed program. If the specific course number is undetermined, please provide level (ie CHEM 4**). Add rows as needed. Is a new prefix needed? If so, provide the subject description so Curricular Affairs can generate proposed prefix options.

<table>
<thead>
<tr>
<th>Course prefix and number (include cross-listings)</th>
<th>Units</th>
<th>Title</th>
<th>Course Description</th>
<th>Pre-requisites</th>
<th>Modes of delivery (online, in-person, hybrid)</th>
<th>Status*</th>
<th>Anticipated first term offered</th>
<th>Typically Offered (F, W, Sp, Su)</th>
<th>Dept signed party to proposal? (Yes/No)</th>
<th>Faculty members available to teach the courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>(New) RED 301</td>
<td>3</td>
<td>Introduction to Real Estate</td>
<td>Introduction to Real Estate is an introductory course that provides students interested in the property market introduction and exposure to its vocabulary, economic forces, regulatory and environmental frameworks, capital markets, and transaction processes. By the end of the course, students will be able to: Identify, define, and utilize foundational real estate vocabulary; distinguish</td>
<td>None</td>
<td>In Person</td>
<td>A</td>
<td>Yes</td>
<td>F &amp; S</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
between forms of property description, ownership, transaction, and liability issues germane to each; identify, define, and demonstrate the role of regulation in the real estate markets; identify and describe factors shaping estimates of property value; identify and describe factors influencing the lending process and the debt markets; and communicate about real estate both visual and written formats. Completion of the course will prepare students well to take state real estate sales licensing courses if they choose to pursue such a pathway.
Subject description for new prefix (if requested). Include your requested/preferred prefix, if any: RED
VI. **FACULTY INFORMATION**—complete the table below. If UA Vitae link is not provided/available, attach a short CV (2-3 pages) to the end of the proposal or upload to the workflow form. UA Vitae profiles can be found in the [UA directory/phonebook](#). Add rows as needed. Delete the **EXAMPLE** rows before submitting/uploading. **NOTE**: full proposals are distributed campus-wide, posted on committee agendas and should be considered “publicly visible”. Contact Pam Coonan and Martin Marquez if you have concerns about CV information being “publicly visible”.

<table>
<thead>
<tr>
<th>Faculty Member</th>
<th>Involvement</th>
<th>UA Vitae link or “CV attached”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core Course Faculty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>James B. Marian, CCIM, MRED</td>
<td>Teach: RED 3XX, 401, 498</td>
<td>CV Attached</td>
</tr>
<tr>
<td>Gary Pivo, Ph.D.</td>
<td>Teach: RED 476</td>
<td>CV Attached</td>
</tr>
<tr>
<td>Arthur C. Nelson, Ph.D.</td>
<td>Teach: RED 401, 485</td>
<td>CV Attached</td>
</tr>
</tbody>
</table>

VII. **STUDENT LEARNING OUTCOMES AND CURRICULUM MAP**—describe what students should know, understand, and/or be able to do at the conclusion of this minor. Work with Office of Instruction and Assessment to create a curricular map using Taskstream. Include your curricular map in this section (refer to Appendix A for sample Curriculum Map generated using Taskstream).

**SIX CORE LEARNING OBJECTIVES**

1. Define, distinguish, and utilize real estate terminology and concepts effectively;
2. Articulate the inter-dependency of space users, creators, and regulators in the real estate market;
3. Produce effective analyses using a variety of data and empirical techniques;
4. Critically evaluate various types of empirical models used in real estate practice;
5. Apply techniques and methods from coursework to analyze real estate opportunities and strategies—integrating critical social, environmental, and economic forces therein; and
6. Effectively communicate about the results of analytical models in prose, rhetoric, database, and visual formats.
### Curriculum Map:

**Real Estate Minor Curriculum Map**
Courses and Activities Mapped to Real Estate Minor

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Outcome 2: Interdependency</th>
<th>Outcome 3: Analysis</th>
<th>Outcome 4: Model Evaluation</th>
<th>Outcome 5: Integration</th>
<th>Outcome 6: Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define, distinguish, and utilize real estate terminology and concepts</td>
<td>Articulate the interdependency of space users, creators, and regulators in the real estate market.</td>
<td>Produce effective analyses using a variety of data and empirical techniques.</td>
<td>Critically evaluate various types of empirical models used in real estate practice.</td>
<td>Apply techniques and methods from coursework to analyze real estate opportunities and strategies, integrating critical social, environmental, and economic forces therein.</td>
<td>Effectively communicate the results of analytical models in prose, rhetoric, database, and visual formats.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Courses and Learning Activities</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RED 301 Final Exam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RED 401 Final Assignment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RED 496 Final Project</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RED 498 Project Presentations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**
- **I**: Introduced
- **P**: Practiced
- **A**: Assessed
- **I/P**: Introduced/Practiced
- **P/A**: Practiced/Assessed
VIII. **ASSESSMENT PLAN FOR STUDENT LEARNING** - using the table below, provide a schedule for program assessment of intended student learning outcomes 1) while students are in the program and 2) after completion of the minor. Add rows as needed.

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>Sources(s) of Evidence</th>
<th>Assessment Measures</th>
<th>Data Collection Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define, distinguish, and utilize real estate terminology and concepts effectively</td>
<td>RED 301</td>
<td>Final Exam</td>
<td>4 Test Series &amp; End of Course</td>
</tr>
<tr>
<td>Articulate the inter-dependency of space users, creators, and regulators in the real estate market</td>
<td>RED 498</td>
<td>Final Presentation &amp; Project</td>
<td>End of Course</td>
</tr>
<tr>
<td>Produce effective analyses using a variety of data and empirical techniques</td>
<td>RED 401, RED 498</td>
<td>Final Assignment, Final Presentation &amp; Project</td>
<td>End of Course, End of Course</td>
</tr>
<tr>
<td>Critically evaluate various types of empirical models used in real estate practice</td>
<td>RED 401, RED 498</td>
<td>Final Assignment, Final Presentation &amp; Project</td>
<td>End of Course, End of Course</td>
</tr>
<tr>
<td>Apply techniques and methods from coursework to analyze real estate opportunities and strategies—integrating critical social, environmental, and economic forces therein</td>
<td>RED 401, RED 498</td>
<td>Final Assignment, Final Presentation &amp; Project</td>
<td>End of Course, End of Course</td>
</tr>
<tr>
<td>Effectively communicate about the results of analytical models in prose, rhetoric, database, and visual formats</td>
<td>RED 401, RED 498</td>
<td>Final Assignment, Final Presentation &amp; Project</td>
<td>End of Course, End of Course</td>
</tr>
</tbody>
</table>

*Note: Produced in collaboration with I. Novodvorsky, Ph.D.*
**Additional Note:** With help from the CAPLA Program Assessment Coordinator, Kelly Smith, Ph.D., we will survey RE Minor students immediately prior to graduation on their self-assessment of skills and the extent to which they believe they have met the learning objectives. This data will be used for long-term trend analysis.

IX. **ANTICIPATED STUDENT ENROLLMENT** - complete the table below. What concrete evidence/data was used to arrive at the numbers?

<table>
<thead>
<tr>
<th>5-YEAR PROJECTED ANNUAL ENROLLMENT</th>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
<th>4th Year</th>
<th>5th Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Students</td>
<td>25</td>
<td>49</td>
<td>71</td>
<td>71</td>
<td>71</td>
</tr>
</tbody>
</table>

Data/evidence used to determine projected enrollment numbers:

- Student interactions with Commercial Real Estate Club
- Student interactions with Commercial Real Estate Club
- Historical enrollment in PLG 476: Land Development Process
- Historical student interactions vis-a-vis enrolling in 500 level MRED classes

X. **ANTICIPATED MINORS AWARDED** - complete the table below, beginning with the first year in which minors will be awarded. How did you arrive at these numbers? Take into consideration departmental retention rates.

<table>
<thead>
<tr>
<th>PROJECTED MINORS AWARDED ANNUALLY</th>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
<th>4th Year</th>
<th>5th Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Minors</td>
<td>0</td>
<td>25</td>
<td>49</td>
<td>71</td>
<td>71</td>
</tr>
</tbody>
</table>

Data/evidence used to determine number of anticipated minors awarded annually:
• Student interactions with Commercial Real Estate Club
• Historical enrollment in PLG 476: Land Development Process
• Historical student interactions vis-a-vis enrolling in 500 level MRED classes

Budget models attached for consideration and review.

PROGRAM DEVELOPMENT TIMELINE - describe plans and timelines for 1) marketing the minor and 2) student recruitment activities.

Post-Degree Approval: Immediate
• Add program description and major information to CAPLA web page
• Development of marketing materials in coordination with CAPLA marketing staff, faculty and UA Marketing and Brand Management
  o Google Ad-words
  o Web banner ads
  o Social media campaigns through main UA and CAPLA channels
  o Collateral/print materials for distribution
• Undergraduate Recruitment Coordinator and Advising Team to begin educating prospective students about RE minor program:
  o NACAC/RMACAC HS Recruitment fairs
  o High school/community college visits & fairs
  o High school & Transfer Advisor/Counselor visits and info sessions
  o Non-degree seeking/partner programs, student major info sessions
• UA Admissions Recruitment training
• Engage with local real estate brokers, development, and investment firms to increase awareness of program
• Provide opportunities for prospective students to learn about real estate through firm visits and engage with alumni from the Masters of Real Estate Development (MRED) program
• Electronic trade journal and professional association program announcement – American Real Estate Society, American Real Estate and Urban Economics Association, Pension RE Association, Urban Land Institute, Realtor.com, and others.

Post-Degree Approval: Ongoing
Distribute printed/digital marketing material to:
• Recruitment Coordinators, Admissions Counselors, Program coordinators and advisors for distribution across campus
• Traditional (physical) and digital billboards across campus (i.e., student union, library resource centers and student recreation centers)
• Update dynamic CAPLA webpage content to include student work and student outreach activities
• Continued engagement with local firms to increase awareness of program and maintain professional-student relationships and engagement activities.
• Job Fair participation
• Firm Visits/Alumni professional engagement

Student Recruitment: In-person recruitment efforts, beginning Fall 2020 and Spring 2021:
• On-Campus:
  o Presentations to relevant general education classes and to undeclared students by current BLA/MLA faculty and MLA students.
  o Host brown-bag, Lunch-n-Learns or other similar information sessions at the college for interested current students.
  o Invite interested students to community events hosted or supported by the program, encouraging interaction with the current student population and faculty.

• Off-Campus:
  o Make presentations to high schools and community colleges with a focus on resident student retention. Consider sending current students from related programs as ambassadors.
  o Provide training and information to UA International recruiters about program.
  o Elementary engagement and outreach through community events (ie: STEM Fairs, HS classroom visits)
  o Participate in college fairs across Arizona and the nation highlighting the strength of our program.
    ▪ NACAC/RMACAC HS Recruitment fairs
    ▪ High school/community college visits & fairs
    ▪ High school & Transfer Advisor/Counselor visits and info sessions

Other Recruiting Notes
• Non-degree seeking/partner programs, student major info sessions
• UA Admissions Recruitment training/updates
• Assess recruitment efforts at the end of recruitment cycle to determine efficacy and create plan for following semester.
• Manage student prospects through UA Admissions to communicate with inquiries; and
• Track students through admissions pipeline from inquiry to application to matriculation.
XI. **DIVERSITY AND INCLUSION**—describe how you will recruit diverse students and faculty to this minor. In addition, describe retention efforts in place or being developed in order to retain students.

The real estate minor at the University of Arizona will serve as a vehicle to shine light on and address issues of diversity and inclusion in the residential and commercial real estate markets. It will build on the successful efforts of the in-person MRED program which has benefitted immensely from a focus on inclusive excellence. Students representing Native American, LGBTQ, Asian American, White, Latino, African American, Women, Jewish, Christian, International, and other communities have graduated the MRED program and, in the process, profoundly elevated the quality of discourse and student success outcomes. Moreover, each student has excelled after graduating. Together, they form a core community on which the real estate minor will draw for support and engagement.

Also shaping this conversation are industry mandates about sustainability that suggest a new focus on diversity and inclusion efforts within real estate firms and their portfolios. Recent guidance from BlackRock, one of the largest asset managers in the world, informed clients that the firm will screen all investments through the lenses of people, planet, and profit. Among many positive changes this portends, it will help require the real estate market to incorporate a greater diversity of
perspectives from a wider array of communities and voices.

The real estate minor will prepare students to contribute to this critical and evolving conversation by immersing them in it; providing them with opportunities to gain skills that create and sustain value over the long-term.

In this context, the real estate minor has several inclusive excellence related goals germane to both recruitment and retention. The following goals seek to expand the conversation about real estate on campus and to create excellence through diversity.

1. Utilize and integrate partnerships with the diverse population of University of Arizona MRED and other program graduates to support coursework, materials, cases, and presentations:
2. Utilize and integrate partnerships with local and regional firms to support coursework, materials, cases, and presentations;
3. Systematically present cases, strategies, and material that demonstrate the literature, science, and potential of diversity, inclusion, and sustainability in the property markets:
   a. Current MRED faculty created and continue to be research and thought leaders in Responsible Property Investing, an area of study focusing on human and environmental dimensions of real estate investment
   b. With cities creating more than 80% of global gross domestic product and the home to most of the world population, it is imperative to present diversity of people, jobs, industries, ideas, and communities as a sufficient condition for market functionality and success; and
   c. Demonstrate how firms are putting these ideas into practice via case presentations and analyses.
4. Create scholarships and permanent sources of funding to support inclusive excellence efforts:
   a. Student scholarships (e.g., tuition, fees, books, and stipends)
   b. Student projects
5. Create opportunities for students and faculty to engage with industry thought leaders from multiple community types who have harnessed inclusive excellence to create value for themselves and for their clients:
   a. Actively recruit (i.e., pay for travel/lodging) these thought leaders to present cases and participate in discussions; and
   b. Foster opportunities in and outside of class to engage with the conversations these thought leaders begin.

These goals will build upon existing program success at the University of Arizona—success that can be leveraged for recruitment and marketing purposes. Successful pursuit of these goals will also generate momentum that can help recruit
more widely (e.g., with scholarships, job placements, and engagement).

With respect to retention, the minor will have strong student and faculty advising from the core faculty and staff housed within the College of Architecture, Planning, and Landscape Architecture. These faculty and staff work well together presently and have a 100% retention rate in the in-person MRED degree. While it should be expected that retention will be lower in the undergraduate minor, experience suggests that advising, social connections between students, and high-quality connections to practitioners and faculty also play a role in student retention. The faculty and staff associated with the minor within CAPLA commit to providing the same quality approachability, connectivity, and practitioner engagement from the MRED program. Additional staffing at the college level within CAPLA is expected to help ensure consistent levels of advising and student enrollment and course management. By committing to the inclusive excellence and with our industry partners, this promises to be a winning combination.
# Budget Projection Form

**Name of Proposed Program or Unit:** RED Minor

**Budget Contact Person:** Simon White

<table>
<thead>
<tr>
<th>METRICS</th>
<th>1st Year</th>
<th>2nd Year</th>
<th>3rd Year</th>
<th>4th Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net increase in annual college enrollment UG</td>
<td>25</td>
<td>49</td>
<td>71</td>
<td>71</td>
</tr>
<tr>
<td>Net increase in college SCH UG</td>
<td>150</td>
<td>221</td>
<td>289</td>
<td>289</td>
</tr>
<tr>
<td>Net increase in annual college enrollment Grad</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net increase in college SCH Grad</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of enrollments being charged a Program Fee</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Sponsored Activity (MTDC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Faculty FTE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## FUNDING SOURCES

**Continuing Sources**

- UG RCM Revenue (net of cost allocation) | 28,585 | 42,163 | 55,062 | 55,062 |
- Grad RCM Revenue (net of cost allocation) | | | | |
- Program Fee RCM Revenue (net of cost allocation) | | | | |
- F and A Revenues (net of cost allocations) | | | | |
- UA Online Revenues | | | | |
- Distance Learning Revenues | | | | |
- Reallocation from existing College funds (attach description) | | | | |
- Other Items (attach description) | | | | |

**Total Continuing**

$28,585 $42,163 $55,062 $55,062

**One-time Sources**

- College fund balances | | | | |
- Institutional Strategic Investment | | | | |
- Gift Funding | | | | |
- Other Items (attach description) | | | | |

**Total One-time**

$- $- $- $-

**TOTAL SOURCES**

$28,585 $42,163 $55,062 $55,062

## EXPENDITURE ITEMS

**Continuing Expenditures**

- Faculty | 12,000 | 12,000 | 12,000 | 12,000 |
- Other Personnel | - | - | - | - |
- Employee Related Expense | 3,700 | 3,700 | 3,700 | 3,700 |
- Graduate Assistantships | - | 7,200 | 7,200 | 7,200 |
- Other Graduate Aid | | | | |
- Operations (materials, supplies, phones, etc.) - Marketing | - | - | - | - |
- Additional Space Cost | | | | |
- Other Items (attach description) | | | | |

**Total Continuing**

$15,700 $22,900 $22,900 $22,900

**One-time Expenditures**

- Construction or Renovation | | | | |
- Start-up Equipment | | | | |
- Replace Equipment | | | | |
- Library Resources | | | | |
- Other Items - Course Build | - | - | - | - |

**Total One-time**

$- $- $- $-

**TOTAL EXPENDITURES**

$15,700 $22,900 $22,900 $22,900

**Net Projected Fiscal Effect**

$12,885 $19,263 $32,162 $32,162
April 28, 2020

To Whom It May Concern:

I approve of the use of the following courses for the proposed School of Landscape Architecture and Planning program minor, Real Estate Development, and enthusiastically support its creation.

- ECON 301: Micro Economic Analysis & Applications
- ECON 331: Macro Economic Analysis & Policy

Thank you for your consideration.

Sincerely,

Andreas Blume
Department Head, Economics
April 28, 2020

To Whom It May Concern:

I approve of the use of the following courses for the proposed School of Landscape Architecture and Planning program minor, Real Estate Development, and enthusiastically support its creation.

- CE 381: Construction Engineering & Management
- CE 482: Construction Project Planning, Scheduling, & Control
- CE 483: Construction Cost Estimating

Thank you for your consideration.

Sincerely,

Dominic Boccelli
Department Head, Civil and Architectural Engineering and Mechanics
Dear Drew,

Please accept this note as documentation of my enthusiastic support of including the following courses that I currently teach through the AETI department: ALC 410, 411, and 422.

Best wishes in launching the minor!

Matt

Matthew M. Mars, PhD
Associate Professor, Leadership and Innovation
Director, Career Center
College of Agriculture and Life Sciences
The University of Arizona
mmars@arizona.edu

Received.

Tremendous thank you!

d

[Drew Sanderford]

Drew Sanderford, PhD
Associate Professor of Real Estate & Planning
University of Arizona
Sanderford@email.arizona.edu
May 1st 2020

To Whom It May Concern:

I approve of the use of the following GEOG courses for the proposed School of Landscape Architecture and Planning program minor, Real Estate Development, and we are pleased to support its creation.

CAPLA Recommended Electives

PLG/GEOG 302 Intro to Sustainable Development

Non-CAPLA Recommended Electives

GEOG 305 Economic Geography
GEOG 371 Principles and Practices of Regional Development
GEOG 471 Problems in Regional Development
GEOG 379 Urban Growth & Development
GEOG 456 The American City

Thank you for your consideration.

Sincerely,

Diana Liverman

Director, School of Geography and Development, University of Arizona
May 4, 2020

To Whom It May Concern:

I approve of the use of the following courses for the proposed School of Landscape Architecture and Planning program minor, Real Estate Development, and enthusiastically support its creation.

POL 483: Urban Public Policy

Thank you for your consideration.

Sincerely,

Edella Schlager, Director

School of Government and Public Policy
To Whom It May Concern:

I approve of the use of the following courses for the proposed School of Planning and Landscape Architecture program minor, Real Estate Development, and enthusiastically support its creation.

- FIN 304: Real Estate Principles
- FIN 460: Real Estate Finance

Where some courses such as FIN 460 require specific prerequisite course sequences we request that the applicants include language in final curricular description materials that disclaims something like, "To enroll in any non-CAPLA elective, students must meet all necessary college admissions, enrollment, and course prerequisite requirements."

Thank you for your consideration.

Sincerely,

Richard Sias
Department Head, Finance
March 23, 2020

Dear Dean Pollock-Ellwand,

On behalf of the members of Urban Land Institute (ULI) Arizona, I am excited to hear of your plan to create a minor in Real Estate at the University of Arizona (U of A). I offer our full support for the proposal. It is complementary to our mission and will contribute vibrancy and welcome new talent into our real estate economy.

The mission of the Urban Land Institute is, “to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide.” We have members in 95 countries around the world and create space to create and discuss, “ideas, information, and experience among local, national, and international industry leaders and policy makers dedicated to creating better places.” At present, students in your Masters of Real Estate Development program participate in our programs and events. For example, students regularly our Trends Day program. Further, graduates have joined the Young Leaders group and benefitted greatly from mentoring during the early stages of their careers. It has been a terrific partnership that helps amplify students’ professional success pathways. We look forward to the next phase.

With a minor, we are excited to help grow the success of the students even more broadly. Our members across real estate are pleased to know there will be students graduating from the U of A with the range of skills described in your minor proposal. These students will be in demand in the job market and provide new energy and innovative thinking to firms operating Arizona real estate market and beyond. We are all excited about the potential here and look forward to creating a better built environment together.

Sincerely,

Gerri Lipp, Executive Director
ULI Arizona
April 6, 2020

To Whom It May Concern,

For more than eight years, the Tucson commercial real estate (CRE) community has embraced the Masters of Real Estate Development (MRED) Program at the College of Architecture, Planning & Landscape Architecture (CAPLA). Some of our real estate executives have graduated with the MRED degree. Others of us have had the privilege (and fun) of being guest lecturers in the MRED Program. We have also hired quite a few MRED graduates.

CAPLA’s students and faculty have a standing invitation to have lunch with the Southern Arizona CCIM Chapter every month, and attend the Pima County Real Estate Research committee meetings. Some of us select CAPLA students for internship programs and student Board positions.

The CRE industry is a strong driver of our Tucson economy. All of the undersigned associations and CRE executives know what CAPLA can and will do to help train future real estate executives who will, in turn, propel the Tucson and State economy into the next decade.

We all strongly support the introduction of an undergraduate real estate minor through CAPLA. We know CAPLA’s instructors and professors have the passion and the desire to work with U of A undergraduates. We believe real estate related degree programs fulfill a real need in our community, for both the students and the businesses that employ them.

We respectfully request that the University of Arizona approve CAPLA’s request to offer a minor in real estate. Thank you for your consideration.

Respectfully submitted,

Please see the attached list of Supporters
James Marian <jmccim.net>  
Mon, Apr 6, 2020 at 1:55 PM  
To: Randy Rogers <Randy@tucsonrealtors.org>, amber@tucsonchamber.org, Allyson Solomon <allyson@mpaaz.org>, mark@markirvin.com, "James T. Lavery (work)" <jamestlavery@outlook.com>, Sara Baker <sbaker@bakerpeterson.com>, Andy Seleznov <andy@larsenbaker.com>, mbpappraiser@comcast.net, George Larsen <george@larsenbaker.com>, kasser@halualoa.com, David Mehl <dmehl@cottonwoodproperties.com>, "Humberto S. Lopez" <chafufu@aol.com>, breuter@picor.com, Jane McCollum <jane@marshallfoundation.com>, Donald Semro-Tom Warne <jlinvestments@aol.com>, Stephen Bus <sbus@upcampusproperties.com>, "Schorr, Andrew" <ASchorr@lrrc.com>, Patty McCallister <rmccallister@mmcompanies.com>, Rob Caylor <Rob@caylor.net>, Dean Cotlow <Cotlow@cotlow.com>, Paul Kraft <Paulkraft@theclovercompany.com>, Cc: Drew Sanderford <sanderford@email.arizona.edu>, "Marian, James Brian - (jmccim)" <jmccim@email.arizona.edu>

External Email

Fellow Real Estate Executives,

This week MRED Professor Drew Sanderford and I plan to submit a formal request to the University of Arizona seeking approval to introduce a Minor in Real Estate. This Minor will be available to ALL students at the University. It may come as a surprise, but the only real estate degree currently offered by the U of A is CAPLA's Master's of Real Estate Development (MRED). We believe a strong show of industry support will help us obtain approval. Please read the attached letter and if you choose to support us, please cut and paste the bold statement below and reply back to me. PLEASE MAKE SURE THAT YOUR CONTACT INFORMATION IS INCLUDED IN YOUR REPLY. Feel free to call me at 403-5132 with any questions or concerns. Thank you for your consideration!! Jim

I respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.

James B. Marian CCIM, MRE
Chapman Lindsey Commercial Real Estate Services LLC
7411 East Tanque Verde Road
Tucson, Arizona  85715
520.747.4000 x 106 (o)
The Tucson Metro Chamber wholeheartedly supports the University of Arizona expanding its degree programs to include a Minor in Real Estate. Real estate and land use is a significant industry in Tucson and having "home grown" students graduate with a degree directly relevant to a major local industry would be impactful and supports the Chamber’s efforts to retain more UA graduates.

I respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.
Mission: Champion an environment where your business thrives and our community prospers

Confidentiality Notice: This message contains information from the Tucson Metro Chamber and is confidential or privileged. The information is intended to be for the use of the individual or entity to which it is addressed. If you are not the intended recipient, be aware that any disclosure, copying, distribution or use of the contents of this message is prohibited. If you have received this email in error, please notify this office by return email or telephone (520) 792-1212 immediately so that we may arrange for the retrieval of the information at no cost to you.

[Quoted text hidden]

I respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.
Confidentiality Notice: This e-mail message [and any attached or transmitted files] is intended solely for the person or entity to which it is addressed and may contain confidential and/or privileged information. The content may be subject to the provisions of privacy legislation. If you have received this e-mail in error, please return to the sender and immediately delete the material from your computer. Unauthorized disclosure, copying, printing, dissemination or other use of this information is prohibited. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this message or for any damage caused by any virus, which arise as a result of e-mail transmission. Please note that any views or opinions presented in this e-mail are solely those of the author and do not necessarily represent those of the company. Thank you.

From: James Marian <jbm@ccim.net>
Sent: Monday, April 6, 2020 1:56 PM
To: Randy Rogers <Randy@tucsonrealtors.org>; amber@tucsonchamber.org; Allyson Solomon <allyson@mpaa.org>; mark@markirvin.com; James T. Lavery (work) <jamestlavery@outlook.com>; Sara Baker <sbaker@bakerpeterson.com>; Andy Seleznov <andy@larsenbaker.com>; mkbappraiser@comcast.net; George Larsen <george@larsenbaker.com>; kasser@halualoa.com; David Mehl <dmehl@cottonwoodproperties.com>; Humberto S. Lopez <chafufu@aol.com>; breuter@picor.com; Jane McCollum <jane@marshallfoundation.com>; Donald Semro-Tom Warne <jlinvestments@aol.com>; Stephen Bus <sbus@upcampusproperties.com>; Schorr, Andrew <ASchorr@lrrc.com>; Ross McCallister <rmccallister@mccompanies.com>; Rob Caylor <Rob@caylor.net>; Dean Cottle <Cotlow@cotlow.com>; Paul Kraft <Paulkraft@theclovercompany.com>
Cc: Drew Sanderford <sanderford@email.arizona.edu>; Marian, James Brian - (jbmarian) <jbmarian@email.arizona.edu>
Subject: NEW-Minor in Real Estate at the U of A
Fellow Real Estate Executives,

[Quoted text hidden]

Jane McCollum <jane@marshallfoundation.com>  Mon, Apr 6, 2020 at 2:43 PM
To: James Marian <jbm@ccim.net>, Randy Rogers <Randy@tucsonrealtors.org>, "amber@tucsonchamber.org" <amber@tucsonchamber.org>, Allyson Solomon <allyson@mpaaaz.org>, "mark@markirvin.com" <mark@markirvin.com>, "James T. Lavery (work)" <jamestlavery@outlook.com>, Sara Baker <sbaker@bakerpeterson.com>, Andy Seleznov <andy@larsenbaker.com>, "mkbappraiser@comcast.net" <mkbappraiser@comcast.net>, George Larsen <george@larsenbaker.com>, "kasser@halualoa.com" <kasser@halualoa.com>, David Mehl <dmehl@cottonwoodproperties.com>, "Humberto S. Lopez" <chafufu@aol.com>, "breuter@picor.com" <breuter@picor.com>, Donald Semro-Tom Warne <jlinvestments@aol.com>, Stephen Bus <sbus@upcampusproperties.com>, "Schorr, Andrew" <ASchorr@lrrc.com>, Patty McCallister <rmccallister@mccompanies.com>, Rob Caylor <Rob@caylor.net>, Dean Cotlow <Cotlow@cotlow.com>, Paul Kraft <Paulkraft@theclovercompany.com>
Cc: Drew Sanderford <sanderford@email.arizona.edu>, "Marian, James Brian - (jbmarian)" <jbmarian@email.arizona.edu>

External Email

As the General Manager of Marshall Foundation and a Past President of Tucson CREW, we support strongly the University of Arizona offering all students the opportunity to minor in real estate which is a major industry and job provider in our community.

I respectfully request the University of Arizona approve CAPLA's proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.

Sincerely,

Jane McCollum
General Manager
Marshall Foundation
Main Gate Square
Fellow Real Estate Executives,

[Quoted text hidden]
Caylor Construction and Development respectfully request the University of Arizona approve CAPLA's proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.

GREAT IDEA

Thank you,

Rob

Robert Caylor
2 E Congress, Suite 900
Tucson, AZ 85701
Cell 520.444.0100
Office 520.298.2200
Caylor.net

From: James Marian <jbm@ccim.net>
Sent: Monday, April 6, 2020 1:56 PM
To: Randy Rogers <Randy@tucsonrealtors.org>; amber@tucsonchamber.org; Allyson Solomon <allyson@mpaaz.org>; mark@markirvin.com; James T. Lavery (work) <jamestlavery@outlook.com>; Sara Baker <sbaker@bakerpeterson.com>; Andy Seleznov <andy@larsenbaker.com>; mkbappraiser@comcast.net; George Larsen <george@larsenbaker.com>; kasser@halualoa.com; David Mehl <dmehl@cottonwoodproperties.com>; Humberto S. Lopez <chafufu@aol.com>; breuter@picor.com; Jane McCollum <jane@marshallfoundation.com>; Donald Semro-Tom Warne <jlinvestments@aol.com>; Stephen Bus <sbus@upcampusproperties.com>; Schorr, Andrew <ASchorr@lrrc.com>; Patty McCallister
Fellow Real Estate Executives,

[Quoted text hidden]

---

Randy Rogers <randy@tucsonrealtors.org>  
Mon, Apr 6, 2020 at 2:44 PM
To: James Marian <jbm@ccim.net>  
Cc: "amber@tucsonchamber.org" <amber@tucsonchamber.org>, Allyson Solomon <allyson@mpaaz.org>, "mark@markirvin.com" <mark@markirvin.com>, "James T. Lavery (work)" <jamestlavery@outlook.com>, Sara Baker <sbaker@bakerpeterson.com>, Andy Seleznov <andy@larsenbaker.com>, "mkbappraiser@comcast.net" <mkbappraiser@comcast.net>, George Larsen <george@larsenbaker.com>, "kasser@halualoa.com" <kasser@halualoa.com>, David Mehl <dmehl@cottonwoodproperties.com>, "Humberto S. Lopez" <chafufu@aol.com>, "breuter@picor.com" <breuter@picor.com>, Jane McCollum <jane@marshallfoundation.com>, Donald Semro-Tom Warne <jlinvestments@aol.com>, Stephen Bus <sbus@upcampusproperties.com>, "Schorr, Andrew" <ASchorr@lrrc.com>, Patty McCallister <rmccallister@mccompanies.com>, Rob Caylor <Rob@caylor.net>, Dean Cotlow <Cotlow@cotlow.com>, Paul Kraft <paulkraft@theclovercompany.com>, Drew Sanderford <sanderford@email.arizona.edu>, "Marian, James Brian - (jbmarian)" <jbmarian@email.arizona.edu>

External Email

The Real Estate industry in Tucson is a major, thriving industry in the region and the ability for our University to offer an undergrad program minor will only enhance the ability for our students to learn and continue to grow here in Tucson.

---

I respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.

Randy Rogers  
CEO  
Tucson Association of REALTORS/MLS Southern Arizona  
812.325.6187

Sent from my iPad

---

On Apr 6, 2020, at 1:56 PM, James Marian <jbm@ccim.net> wrote:
Fellow Real Estate Executives,

This week MRED Professor Drew Sanderford and I plan to submit a formal request to the University of Arizona seeking approval to introduce a Minor in Real Estate. This Minor will be available to ALL students at the University. It may come as a surprise, but the only real estate degree currently offered by the U of A is CAPLA's Master's of Real Estate Development (MRED). We believe a strong show of industry support will help us obtain approval. Please read the attached letter and if you choose to support us, please cut and paste the bold statement below and reply back to me. PLEASE MAKE SURE THAT YOUR CONTACT INFORMATION IS INCLUDED IN YOUR REPLY. Feel free to call me at 403-5132 with any questions or concerns. Thank you for your consideration!!

Jim

I respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.

James B. Marian CCIM, MRE
Chapman Lindsey Commercial Real Estate Services LLC
7411 East Tanque Verde Road
Tucson, Arizona 85715
520.747.4000 x 106 (o)
520.403.5132 (m)
<MREDminorSUPPORTletter2020.doc>

---

Dean Cotlow <cotlow@cotlow.com>  
To: Rob Caylor <Rob@caylor.net>  
Cc: James Marian <jbm@ccim.net>, Randy Rogers <Randy@tucsonrealtors.org>, "amber@tucsonchamber.org" <amber@tucsonchamber.org>, Allyson Solomon <allyson@mpaaz.org>, "mark@markirvin.com" <mark@markirvin.com>, "James T. Lavery (work)" <jamestlavery@outlook.com>, Sara Baker <sbaker@bakerpeterson.com>, Andy Seleznov <andy@larsenbaker.com>, "mkbappraiser@comcast.net" <mkbappraiser@comcast.net>, George Larsen <George@larsenbaker.com>, "kasser@halualoa.com" <kasser@halualoa.com>, David MehI <dmehI@cottonwoodproperties.com>, "Humberto S. Lopez" <chafufu@aol.com>, "breuter@picor.com" <breuter@picor.com>, Jane McCollum <jane@marshallfoundation.com>, Donald Semro-Tom Warne <jlinvestments@aol.com>, Stephen Bus <sbus@upcampusproperties.com>, "Schorr, Andrew" <ASchorr@tirrc.com>, Patty McCallister <rmccallister@mccompanies.com>, Paul Kraft <paulkraft@theclovercompany.com>, Drew Sanderford <sanderford@email.arizona.edu>, "Marian, James Brian - (jbmarian)" <jbmarian@email.arizona.edu>
Please respond to Jim only.

Dean P. Cotlow  
President/Designated Broker  
Cotlow Company  
"It's simple. We get it done."  
3832 East Kleindale Road (US)  
Tucson, Arizona 85716-1400  
Office: 520-881-8180  
Mobile: 520-241-0180  
Web Site: www.cotlow.com  
Email: cotlow@cotlow.com  
Licensed in Arizona (BR01146000)  

It's better to walk alone than walk with a crowd going the wrong direction.  Diane Grant

On Apr 6, 2020, at 2:43 PM, Rob Caylor <Rob@caylor.net> wrote:

Caylor Construction and Development respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.

GREAT IDEA

Thank you,

Rob

Robert Caylor  
2 E Congress, Suite 900  
Tucson, AZ 85701  
Cell 520.444.0100  
Office 520.298.2200  
Caylor.net

<image001.jpg>

<image002.jpg>  
[Quoted text hidden]
As the Executive Director of MPA, a southern Arizona non-profit whose missions it is to create prosperous community by promoting collaborative real estate development policies, building partnerships and finding common ground and whose membership is comprised of those in the real estate development industry, I respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020. MPA believes that real estate development is one of the key components to a healthy and diverse local economy. As a UofA alumni who choose to stay in Tucson after graduation and pursue a career in the development industry, I would like to see more courses available to provide others with the same opportunity I created for myself. Development is an incredibly rewarding and complex industry choice and providing an option to minor in it would give many college students the head start they need to be more competitive in the industry upon graduation.

Thank you for your consideration,

Allyson Solomon  
Executive Director  
2 East Congress, 6th floor  
Tucson, Az. 85701
David Mehl <dmehl@cottonwoodproperties.com>

to me

I respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.

David Mehl
Cottonwood Properties
3597 E. Sunrise Dr, #219
Tucson, Arizona 85718
Office: 520-299-8424
Mobile: 520-907-6491
Sara Baker

to me

As Chair of the Pima County Real Estate Research Council, we support the proposal for the minor in real estate at the University of Arizona. Real estate is an important economic factor in this community, and a minor in real estate would benefit students interested in real estate as well as providing opportunities for the real estate community at large.

I respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.

Sara Baker
Chair, Pima County Real Estate Research Council
M. Bernstein Real Estate Appraisals

to me

Dear Sir or Madam,

I respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.

On a personal note, I graduated from the University of Arizona in 1984. At that time there was little in the way of curriculum in real estate. In lieu of a degree in real estate, I obtained my Bachelor of Science in Business Administration. I cannot imagine where my career may have gone if not for taking my electives in Real Estate Appraisal, taught by Mr. Sanders (Sonny) K. Solot, MAI. Certainly, I was not the only appraiser in Tucson to have begun their career in those classes. He was busy enough running his own appraisal office, but he found time to share his love of real estate with us. Other appraisers continued the tradition of teaching appraisal courses, including Steve Cole, MAI and Andrew Briefer, MAI. We wholeheartedly support the development of a full real estate curriculum allowing for a strong learning experience and an opportunity for all students to develop and contribute to the Tucson community.

Michael Bernstein, MAI
President of the Board of Directors

Southern Arizona Chapter of the Appraisal Institute

and owner/principal appraiser at

M. Bernstein Real Estate Appraisals
5363 E. Pima St., Suite 101
Tucson, AZ 85712
(520) 325-3554 tele.
(520) 622-3308 fax

mkbappraiser@comcast.net
Co-signed! Way to move this forward, Jim!

I respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.

Barbi Reuter, President
Cushman & Wakefield | PICOR

O +1 (520) 546 2744
M +1 (520) 977 1144
Twitter: @BarbiReuter @PICORcres
I respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.

Stephen G. Bus | Managing Principal
Up Campus Properties, LLC
152 W Huron Street, Suite 100 | Chicago, IL 60654
M: (312) 590-9700 Cell
O: (312) 720-0989 Office – Main Line
sbus@upcampusproperties.com
http://www.upcampusproperties.com
Schorr, Andrew

to me

Speaking on my own behalf only, I respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.

Andrew D. Schorr
Partner
520.629.4414 office
520.879.4718 fax
aschorr@lrcc.com

Lewis Roca Rothgerber Christie LLP
One South Church Avenue, Suite 2000
Tucson, Arizona 85701-1611
lrcc.com

From: James Marian <jbm@ccim.net>
Sent: Monday, April 6, 2020 1:56 PM
To: Randy Rogers <Randy@tucsonrealtors.org>; amber@tucsonchamber.org; Allyson Solomon <allyson@mpaaz.org>; mark@markirvin.com; James T. Lavery (work) <jamestlavery@outlook.com>
Sara Baker <sbaker@bakerpeterson.com>; Andy Seleznov <andy@larsenbaker.com>; mkappraiser@comcast.net; George Larsen <george@larsenbaker.com>; kasser@halualoa.com; David Mehl <dmehl@cottonwoodproperties.com>
Humberto S. Lopez <chaifu@aol.com>; breuter@picor.com; Jane McCollum <jane@marshallfoundation.com>; Donald Semro-Tom Warne <jllinvestments@aol.com>; Stephen Bus <sbus@upcampusproperties.com>; Schorr, Andrew <ASchorr@lrcc.com>; Patty McCallister <rmcallister@mccompanies.com>; Rob Caylor <Rob@caylor.net>; Dean Cotlow <Cotlow@cotlow.com>; Paul Kraft <Paulkraft@theclovercompany.com>
Cc: Drew Sanderford <sanderford@email.arizona.edu>; Marian, James Brian - (jbmarian) <jbmarian@email.arizona.edu>
Subject: NEW-Minor in Real Estate at the U of A

[EXTERNAL]
I respectfully request the University of Arizona approve CAPLA’s proposal to offer a minor in real estate as outlined in the attached letter of support dated April 6, 2020.

Susie Moore | Senior Appraiser
CBRE | Valuation & Advisory Services
3719 N. Campbell Avenue | Tucson, AZ 85719
T +1 520 323 5164 | C +1 520 539 9925
susie.moore@cbre.com | www.cbre.com/tucson
Follow CBRE: Facebook | Twitter | @cbretucson | Google+
to me

I concur respectively.

Sent from my iPad

Please reply to:

Mark C. Irvin, CCIM, SIOR
Mark Irvin Commercial Real Estate Services, LLC
3777 East Broadway Blvd., Suite 210
Tucson, Arizona 85716

520.620.1833 - Office
520.620.1830 - Facsimile
520.979.2262 - Mobile

Mark@MarkIrvin.com - Email
www.MarkIrvin.com - Website

"Committed to Timely & Informed Real Estate Decisions"
Undergraduate Minor Peer Comparison Chart - Select two peers for completing the comparison chart from (in order of priority) ABOR-approved institutions, AAU members, and/or other relevant institutions recognized in the field. The comparison chart will be used to identify typically required coursework, themes, and experiences for minor programs within the discipline. The comparison programs are not required to have the same minor name as the proposed UA program. Information for the proposed UA program must be consistent throughout the proposal documents. Delete **EXAMPLE columns** once ready to submit/upload.

<table>
<thead>
<tr>
<th>Minor name, institution</th>
<th>Proposed UA Program:</th>
<th>Peer 1: University of Washington</th>
<th>Peer 2: University of Florida</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor program description</td>
<td>The purpose of the Real Estate minor is to prepare undergraduate students to create and sustain value across multiple types of firms within the real estate industry. The core of the minor curriculum provides introductions to major concepts, strategies, and empirical techniques in residential and commercial real estate. It also confronts major issues in the property markets including sustainability and resilience. The electives in the curriculum facilitate student curiosity in topics related to and providing complementary expertise for real estate development,</td>
<td>Students in the minor will develop technical, statistical, and analytical skills that will enable them to interpret data across a wide range of topics. This analysis will aid in addressing many of the challenges facing the world today. The interdisciplinary nature of real estate will be highlighted throughout the minor and in a variety of learning environments that students will encounter. Learning outcomes include:</td>
<td>The real estate minor: (1) introduces the business of commercial real estate, including the roles, activities, and players in the industry, common terminology, and the real estate transaction process, and (2) prepares students to make sound decisions concerning real estate use and investment. The minor also exposes the numerous career paths available in the commercial real estate industry, including development, real estate appraisal and investment, leasing and asset management, mortgage lending, and commercial brokerage.</td>
</tr>
</tbody>
</table>
investment, and analysis. Real Estate minor core course faculty are award winning thought leaders who have significant experience and history of engagement with both real estate research and practice. Students who complete the minor will be prepared to work at a variety of real estate firms across an array of sizes and asset classes. Graduates will master skills demanded by the market place and learn from practitioners through cases, presentations, projects, and networking events. They will be prepared to sit for state real estate sales licensing exams and will have the opportunity to pursue Argus Certification.

| • Understand the participants and processes involved in the real estate market |
| • Appreciate the interdisciplinary nature of real estate and how it fits into a broader economic and social framework |
| • Understand the key differences across the various property types and functions |
| • Understand the steps involved in a real estate transaction |
| • Apply a range of analytical and quantitative techniques in an applied real estate context, including real estate appraisal and mortgage calculations |
| • Adopt innovative problem solving and transfer appropriate knowledge and methods across different topics |
| • Understand how the structure of urban areas impact the demand and supply of real estate and how these feed into |
broader issues such as public policy and regional economic development and planning

**Target careers**

- Real Estate (RE) Broker
- RE Developer
- RE Investor
- Banker/Lender
- RE Asset Manager
- RE Portfolio Manager
- RE Attorney
- Financial Analyst
- Entrepreneur

**Minimum total units required**

| 18 | 25 | 22 |

**Minimum upper-division units required**

| 15 | 9  | 16 |

**Total transfer units that may apply to minor**

| 6  | 9  | 6  |

**List any special requirements to declare/admission to this minor**

- Meet with CAPLA advisor to declare, Min 2.75 in minor core.
- Meet with advisor to declare Min 3.0 in minor coursework

**Minor requirements. List all minor requirements including core and electives. Courses listed must include course prefix, number, units, and title. Mark new coursework (New). Include any limits/restrictions needed (house number limit, etc.). Provide email(s)/letter(s) of support from home department head(s) for courses not owned by your department.**

**RE Minor Core (15 hours):**

- (New) RE 3XX: Principles Real Estate
- RED 407: Survey of Responsible RE Development
- RED 401: Introduction to Real Estate Finance
- RED 476: Land Development Process
- RED 498: Professional Projects in Real Estate

**RE Minor Core:**

- RE250: Intro to Real Estate (3hrs)
- RE416: RE Market Analysis (4hrs)
- RE361: Prop Transaction Law (3hrs)
- RE411: RE Valuation (3hrs)
- RE363: RE Develop Process (3hrs)
- RE364: RE Asset Mgmt (3hrs)
- RE365: Intro RE Finance (3hrs)
- RE497: RE Data Modeling (4hrs)
- RE 400: RE Accounting (3hrs)
- RE 401: Housing Mkts (3hrs)

**RE Minor Core (16 hours):**

- BUL4310: Legal Environment of Business (4hrs)
- ECO 2013/23: Principles of Microeconomics or Macroeconomics (4hrs)
- REE 3043: RE Investment Decision Making (4hrs)
<table>
<thead>
<tr>
<th>Internship, practicum, applied course requirements (Yes/No). If yes, provide description.</th>
<th>Yes: RED 498 Projects in RE provides applications oriented end to minor.</th>
<th>No</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional requirements (provide description)</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

*Note: comparison of additional relevant programs may be requested.*
Executive Summary

Request for Authorization to Implement (Undergraduate Minor in Climate Change and Society)

<table>
<thead>
<tr>
<th>Requested by</th>
<th>School of Natural Resources and the Environment (CALS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIP Code</td>
<td>03.0103, Environmental Studies</td>
</tr>
<tr>
<td><strong>Purpose of Program</strong></td>
<td>People, animals, plants, and all living organisms are being impacted by long-term changes in temperatures and ecosystems around the world. This global change is an increasingly dominant fact of life for all human and natural systems, and we can see the impacts all around us. In many parts of the world, governments and organizations have already been forced to adapt to ensure basic services that are essential for human civilization—including water, food, clean air, livable climate, renewable resources, and natural areas—will continue to be available for their communities. Climate change is also creating unprecedented new opportunities for innovation and economic growth; the jobs of the future are already aligning with solving the tremendous reorganization of the global economy driven by this global change. College students today will live their entire personal and professional lives in a world that is being shaped by these rapidly-changing forces; there is no part of our world that will not be touched by global change. The Minor in Climate Change and Society is designed to supplement the career interests of students in any field who want to understand how global change will affect their professional and personal lives and adapt to new emerging career opportunities. The CCS Minor curriculum ensures basic competency in three primary areas, taking advantage of UArizona’s expert faculty. First, students will have the opportunity to understand the physical and natural realities of global change, including what is driving these changes and how they are being manifested in today’s world. The component of the Minor is designed to enable students, as current and future citizens, to distinguish fact from fiction, and learn important skills in critical thinking about important global issues. Second, the Minor will examine how societies are adapting to address these challenges, both through short-term adaptation and via long-term restructuring of the global economy. The third component of the Minor is intended to be solutions-oriented; instead of instilling feelings of helplessness and fatalism, we hope to inspire students to see the enormous range of creative possibilities in technological and social change that will be key to the coming century. Students will have the flexibility within the Minor to select electives to match their curriculum to their specific academic and career interests and have the opportunity to practice what they’ve learned through internships or research. The ultimate goal of the Minor is to produce a generation of UA alumni who will be effective professionals and educated world citizens. The Minor is designed to respond to and advance multiple goals articulated in the <em>University of Arizona Strategic Plan</em>.</td>
</tr>
<tr>
<td>Source(s) of Funding</td>
<td>RCM Revenue. No additional resources required.</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------------------------</td>
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### 5-year projected annual enrollment

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<tr>
<th></th>
<th>1&lt;sup&gt;st&lt;/sup&gt; year</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; year</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; year</th>
<th>4&lt;sup&gt;th&lt;/sup&gt; year</th>
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<td>30</td>
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<td>70</td>
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</tbody>
</table>

### Approvals:
- ABOR
- Undergraduate Council
- CAAC
- Faculty Senate

---

For use by Curricular Affairs:
- ☐ Create approval memo
- ☐ Send memo to college/dept and acad_org listserv
- ☐ Create UAccess Plan Table code(s) (secondary?)
- ☐ Upload approval memo and proposal documents to UAccess Plan Table
- ☐ Notify acad_org of the plan code creation
- ☐ Notify ADVIP team
- ☐ Update API, if necessary
New Academic Program Workflow Form

General

Proposed Name: Climate Change and Society
Transaction Nbr: 00000000000058
Plan Type: Minor
Academic Career: Undergraduate
Degree Offered:
Do you want to offer a minor? N
Anticipated 1st Admission Term: Sprg 2021

Details

Department(s):

AGSC

<table>
<thead>
<tr>
<th>DEPTMNT ID</th>
<th>DEPARTMENT NAME</th>
<th>HOST</th>
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<tbody>
<tr>
<td>1239</td>
<td>School of Natural Resources and the Environment</td>
<td>Y</td>
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</table>

Campus(es):

MAIN

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>TUCSON</td>
<td>Tucson</td>
</tr>
</tbody>
</table>

Admission application terms for this plan: Spring: Y Summer: Y Fall: Y

Plan admission types:

Freshman: Y Transfer: Y Readmit: Y Graduate: N
Non Degree Certificate (UCRT only): N
Other (For Community Campus specifics): N

Plan Taxonomy: 03.0103, Environmental Studies.
Program Length Type:   Program Length Value: 0.00
Report as NSC Program:
SULA Special Program:

Print Option:
Diploma: Y   Minor in Climate Change and Society
Transcript: Y   Minor in Climate Change and Society

Conditions for Admission/Declaration for this Major:
Students will need to meet with an advisor in SNRE to go over a course plan and declare the minor

Requirements for Accreditation:
NA

Program Comparisons

University Appropriateness
The proposed Minor in Climate Change and Society responds directly to multiple goals articulated in the University of Arizona Strategic Plan. Among the key goals in the Strategic Plan that are addressed and advanced by the proposed Minor are the following:

Pillar 1: The Wildcat Journey. Driving Student Success for a Rapidly Changing World
1.1A1: Strategically recruit prospective high-potential undergraduate students. Having an active, solutions-oriented major addressing the concerns of many young people today will encourage them to see the University of Arizona as a place where key issues are addressed head-on in a constructive fashion. A recent Gallup Poll found that 70% of Americans aged 18-34 worried "a great deal or a fair amount" about the climate and global warming (US News and World Report 13 November 2019). A 2018 Washington Post/Kaiser Family Foundation study found that one-quarter of all American teenagers are aware of the challenges of climate change and have taken part in some form of active engagement. Careers in climate, sustainability rank among the "fastest Growing Occupations" by the US Bureau of Labor Statistics (April 2019). These figures indicate a remarkably high level of awareness among high-school students, and thus an extraordinary recruitment opportunity for the University of Arizona. Offering a minor in global change to any student in the University will put UA in the forefront of its peer institutions. While many institutions offer Master's and advanced degrees in climate change and related subjects, few presently offer degrees for undergraduates. The UA CCS Minor will be unique in being designed explicitly to attract students across campus: journalism, political science, economics, sociology, law, business, and the arts.
1.2A1: Design a new Gen Ed curriculum. Under the UA Strategic Plan, the transformed General Education (GE) curriculum will prepare students for a changing and complex world. No aspect of our changing world is more urgent, and with more currency across all fields of study and all aspects of the global economy, than climate and associated global changes. Indeed, it can be argued persuasively that if there is any single aspect of the world that today’s young people must understand as they graduate and take their places in society, it is the profound challenges and enormous opportunities of global climate change. The Climate Change and Society Minor will allow students whose interests and curiosity are stimulated in GE courses to pursue the subject further, while still allowing them to choose and follow their own major degrees of interest.

Pillar 2: Grand Challenges
2.2A: Build upon UA eminence in environmentally-oriented areas of research and education. As the University pursues its mission to become a top-ten ranked environmental university in the world, climate change impacts and adaptation must rise to the very top of institutional priorities. Much of the University’s current expertise is in basic climate science and impacts, such as on ecosystems and water. It is noteworthy that the Grand Challenges associated with global change include not only outstanding research on its causes and consequences, but also intensive and productive research in effective climate adaptation and, ultimately, solutions. The proposed Minor will emphasize not only basic climate literacy, but also an orientation toward finding solutions space in both technological and social change.

Pillar 3: The Arizona Advantage
3.1A and 3.1B: Strengthen the impact and visibility of UA’s commitment to equity and support of diverse communities, and Institutionalize commitment to Hispanic advancement. As a campus-wide Minor, the proposed program will provide opportunities to advance this component of the University’s Mission and Strategic Plan. Lower-income communities and communities of color are affected disproportionately by climate change, creating an additional motivation for a wide range of students to be interested in understanding climate change, its effects and solutions. We propose to engage in specific targeted outreach to these communities for students interested in global change. Examples may include the Arizona’s Science, Engineering, and Math Scholars (ASEMS) Program, initiatives to promote Campus-Community Outreach for STEM Diversity, and other programs of the Office of the Provost, Hispanic Serving Institution (HSI) Initiatives, the Office of Diversity and Inclusive Excellence, and the Office of Leadership and Organizational Development.

The proposed minor is consistent with the College of Agriculture and Life Sciences strategic plan in its purpose of ensuring “resilience and health of our communities, people, environments, and economies locally, regionally, and globally.” https://cals.arizona.edu/about/strategic-planning/cals-strategic-plan/mission. This new minor is also in line with the CALS mission of increasing
our student's readiness for new careers that haven't yet been invented, which will "enable their future success in the regional and global economies."

**Arizona University System**

<table>
<thead>
<tr>
<th>NBR</th>
<th>PROGRAM</th>
<th>DEGREE</th>
<th>#STDNTS</th>
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**Peer Comparison**

Our proposed minor is similar to University of Montana and UCSD Scripp's Climate Change Studies minor in that emphasis is placed not only on the science behind climate change, but the social, political, and economic aspects as well. Like the other institutions, our proposed minor incorporates a Sustainable Actions and Solutions topic area that can tailored to a student's major and career interests. Most related minors at other institutions focus only on the climate science. While the two peer institutions require an experiential component, our minor includes both internships and a practicum as options in the Sustainable Actions and Solutions area, not required components.

**Faculty & Resources**

**Faculty**

Current Faculty:

<table>
<thead>
<tr>
<th>INSTR ID</th>
<th>NAME</th>
<th>DEPT</th>
<th>RANK</th>
<th>DEGREE</th>
<th>FCLTY/%</th>
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<tbody>
<tr>
<td>12107555</td>
<td>John Koprowski</td>
<td>1239</td>
<td>Professor</td>
<td>Doctor of Philosophy</td>
<td>5.00</td>
</tr>
<tr>
<td>22052954</td>
<td>Rachel Gallery</td>
<td>1239</td>
<td>Assoc. Prof</td>
<td>Doctor of Philosophy</td>
<td>5.00</td>
</tr>
<tr>
<td>10703201</td>
<td>Donald Falk</td>
<td>1239</td>
<td>Professor</td>
<td>Doctor of Philosophy</td>
<td>5.00</td>
</tr>
<tr>
<td>22053660</td>
<td>David Moore</td>
<td>1239</td>
<td>Assoc. Prof</td>
<td>Doctor of Philosophy</td>
<td>10.00</td>
</tr>
<tr>
<td>15205128</td>
<td>Joellen Russell</td>
<td>1205</td>
<td>Assoc. Prof</td>
<td>Doctor of Philosophy</td>
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</tr>
<tr>
<td>01322455</td>
<td>Kathleen Prudic</td>
<td>1239</td>
<td>Assit. Prof</td>
<td>Doctor of Philosophy</td>
<td>10.00</td>
</tr>
<tr>
<td>00902658</td>
<td>Dereka Rushbrook</td>
<td>3008</td>
<td>Assoc. Prof</td>
<td>Doctor of Philosophy</td>
<td>10.00</td>
</tr>
<tr>
<td>06902654</td>
<td>Andrea Gerlak</td>
<td>3008</td>
<td>Assoc. Prof</td>
<td>Doctor of Philosophy</td>
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</tr>
<tr>
<td>12102754</td>
<td>Gregg Garfin</td>
<td>1239</td>
<td>Assoc. Prof</td>
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<tr>
<td>14704231</td>
<td>David Breshears</td>
<td>1239</td>
<td>Professor</td>
<td>Doctor of Philosophy</td>
<td>10.00</td>
</tr>
<tr>
<td>22071345</td>
<td>William Smith</td>
<td>1239</td>
<td>Assit. Prof</td>
<td>Doctor of Philosophy</td>
<td>10.00</td>
</tr>
</tbody>
</table>
Additional Faculty:

We do not anticipate the need for additional faculty during the initiation of the program since all courses and administration can be accomplished by current faculty members.

Current Student & Faculty FTE

<table>
<thead>
<tr>
<th>DEPARTMENT</th>
<th>UGRD HEAD COUNT</th>
<th>GRAD HEAD COUNT</th>
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<tr>
<td>1239</td>
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Projected Student & Faculty FTE

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<td>32.00</td>
<td>32.00</td>
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</tr>
</tbody>
</table>

Library

Acquisitions Needed:

We do not anticipate this minor creating a need for additional library acquisitions.

Physical Facilities & Equipment

Existing Physical Facilities:

The existing facilities and equipment should be sufficient for the proposed program because the courses in the minor are being taught using the resources currently available.

Additional Facilities Required & Anticipated:

We do not anticipate this minor creating a need for additional physical facilities or equipment because the courses in the minor are being taught using the resources currently available.

Other Support

Other Support Currently Available:

SNRE currently has 1.5 FTE academic advisors who will be able to assist students with adding the minor. Existing faculty in the department should be able to advise students choosing to complete internships or practicums and curriculum co-advisors in SGD and Geosciences can assist with these as needed.

Other Support Needed over the Next Three Years:

We do not anticipate the need for additional staff or other assistance as the current staff in SNRE should be able to handle academic advising and administrative needs.
## Comments During Approval Process

### 5/5/2020 1:21 PM
**5SQUIRRE1**

<table>
<thead>
<tr>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved.</td>
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### 5/5/2020 1:26 PM
**STATENM**

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<td>Approved.</td>
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### 5/13/2020 12:34 PM
**SCARLSON**

<table>
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<tr>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Updated additional info form, per email from KHUGHES</td>
</tr>
</tbody>
</table>
NEW ACADEMIC PROGRAM-STANDALONE UNDERGRADUATE MINOR
ADDITIONAL INFORMATION FORM

I. MINOR DESCRIPTION—provide a marketing/promotional description for the proposed minor. Include the purpose, nature, and highlights of the curriculum, faculty expertise, etc. The description should match departmental and college websites, handouts, promotional materials, etc.

People, animals, plants, and all living organisms are being impacted by long-term changes in temperatures and ecosystems around the world. This global change is an increasingly dominant fact of life for all human and natural systems, and we can see the impacts all around us. In many parts of the world, governments and organizations have already been forced to adapt to ensure basic services that are essential for human civilization—including water, food, clean air, livable climate, renewable resources, and natural areas—will continue to be available for their communities.

Climate change is also creating unprecedented new opportunities for innovation and economic growth; the jobs of the future are already aligning with solving the tremendous reorganization of the global economy driven by this global change. College students today will live their entire personal and professional lives in a world that is being shaped by these rapidly-changing forces; there is no part of our world that will not be touched by global change.

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The ultimate goal of the Minor is to produce a generation of UA alumni who will be effective professionals and educated world citizens. The Minor is designed to respond to and advance multiple goals articulated in the *University of Arizona Strategic Plan.*

II. **NEED FOR THE MINOR/JUSTIFICATION** - provide market analysis data or other tangible evidence of the need for and interest in the proposed minor. This might include results from surveys of current students, alumni, and/or employers or reference to student enrollments in similar programs in the state or region. Curricular Affairs can provide a job posting/demand report by skills obtained/outcomes of the proposed minor. Please contact [Martin Marquez](mailto:Martin.Marquez@asu.edu) to request the report for your proposal.

The proposed Minor in Climate Change and Society responds directly to multiple goals articulated in the University of Arizona Strategic Plan. Among the key goals in the Strategic Plan that are addressed and advanced by the proposed Minor are the following:

**Pillar 1: The Wildcat Journey. Driving Student Success for a Rapidly Changing World**

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3.1A and 3.1B: Strengthen the impact and visibility of UA’s commitment to equity and support of diverse communities, and Institutionalize commitment to Hispanic advancement. As a campus-wide Minor, the proposed program will provide opportunities to advance this component of the University’s Mission and Strategic Plan. Lower-income communities and communities of color are affected disproportionately by climate change, creating an additional motivation for a wide range of students to be interested in understanding climate change, its effects and solutions. We propose to engage in specific targeted outreach to these communities for students interested in global change. Examples may include the Arizona’s Science, Engineering, and Math Scholars (ASEMS) Program, initiatives to promote Campus-Community Outreach for STEM Diversity, and other programs of the Office of the Provost, Hispanic Serving Institution (HSI) Initiatives, the Office of Diversity and Inclusive Excellence, and the Office of Leadership and Organizational Development.
III. **MINOR REQUIREMENTS**—complete the table below by listing the minor requirements, including minimum number of credit hours, required core, electives, and any special requirements. Note: information in this section must be consistent throughout the proposal documents (comparison charts, curricular/assessment map, etc.). Delete the **EXAMPLE** column before submitting/uploading.

<table>
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<th>Minimum total units required</th>
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<tbody>
<tr>
<td>Minimum upper-division units required</td>
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<tr>
<td>Total transfer units that may apply to minor</td>
<td>6</td>
</tr>
<tr>
<td>List any special requirements to declare/admission to this minor (completion of specific coursework, minimum GPA, interview, application, etc.)</td>
<td>Meet with SNRE advisor to go over a course plan and declare the minor</td>
</tr>
</tbody>
</table>
| Minor requirements. List all required minor requirements including core and electives. Courses listed must include course prefix, number, units, and title. Mark new coursework (New). Include any limits/restrictions needed (house number limit, etc.). Provide email(s)/letter(s) of support from home department head(s) for courses not owned by your department. | **All courses are 3 units except those marked with an * which are 4 units**  
**Introductory course**  
RNR 101 Global Sustainability and Natural Resources  
**Area Study:** Choose a minimum of 6 units from each of the following areas  
**Climate Basics** (please choose a minimum of one course at the 300-400 level)  
ATMO 336 Weather, Climate and Society  
ATMO 421 Physical Climatology  
ENVS 210 Fundamentals of Environmental Sustainability  
ENVS 410 Microbial Biogeochemistry and Global Change  
GEOG 230 Our Changing Climate  
GEOG 430 The Climate System  
GEOS 212 Intro to Oceanography  
GEOS 220 Environmental History of the Southwest  
GEOS 342 History of Earth’s Climate |
GEOS 412 Ocean Sciences
GEOS 478 Global Change
RNR 458 Ecosystem Ecology and a Sustainable Future
RNR 429 Ecological Climatology
*WSM 452 Global Change Ecology and Management

**Social Perspectives**
AIS 403 Globalization and Indigenous People
ASTR 208 Energy, Society, and the Environment
ENVS 310 Ecosystem Health and Justice
EVS 374 Geography, Social Justice and the Environment
EVS 462 Environmental Law, Geography and Society
GEOG 260 Environmental Studies: Ideas and Institutions
GEOG 302 Introduction to Sustainable Development
GEOG 404 Politics of Nature
GER 327 Recycling Culture: Environmentalism Made in Germany
HIST 247 Nature and Technology in U. S. History
LAW 454 Environmental Law
MNE/ANTH 201 Nonrenewable Resources and Human Civilizations
PHIL/PA 323 Environmental Ethics
PLG 256 Sustainable Cities and Societies
RSSS 305 Russian and American Foodways: Cultivation, Culture, and Connectedness

**Sustainable Actions and Solutions**
AREC 360 The Poverty and Development of Nations
EVS 445 Geographies of International Environmental Governance
EVS 363 Climate Change: Human Causes, Social Consequences and Sustainable Responses
JOUR 455 Environmental Journalism
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<tr>
<td>JOUR 465</td>
<td>Issues in covering Science and the Environment</td>
</tr>
<tr>
<td>PHIL/LAW 419</td>
<td>The Ethics &amp; Economics of Environmental Policy (in approval process)</td>
</tr>
<tr>
<td>LAW 459</td>
<td>Public International Environmental Law</td>
</tr>
<tr>
<td>PA 461</td>
<td>Global Climate Change: Integrating Science, Policy, and Decision Making</td>
</tr>
<tr>
<td>PLG 408</td>
<td>Planning for Urban Resilience</td>
</tr>
<tr>
<td>PLG 497S</td>
<td>Sustainable Urban Development and Design</td>
</tr>
<tr>
<td>RCSC 480</td>
<td>Sustainable Consumption &amp; Retailing</td>
</tr>
<tr>
<td>RNR 440</td>
<td>Climate Change Adaptation: Perspectives at the Nexus of Science, Society, &amp; Resource Management</td>
</tr>
<tr>
<td>RNR 496G</td>
<td>Climate Assessment: Explorations in Decision Support</td>
</tr>
<tr>
<td>RNR/GEOG/GEOS/EVS 493</td>
<td>Internship</td>
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<tr>
<td>RNR/GEOG/GEOS/EVS 494</td>
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</tr>
<tr>
<td>RNR/GEOG/GEOS/EVS 499</td>
<td>Independent Study</td>
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</table>

- A minimum of 12 upper division units is required for the minor
- Double dipping of two Tier 2 general education requirements is permitted with the minor
- A minimum of 6 units must be unique to the minor

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Details</th>
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<tbody>
<tr>
<td>Internship, practicum, applied course requirements (Yes/No). If yes, provide description.</td>
<td>Must be approved by faculty administering the minor</td>
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<tr>
<td>Additional requirements (provide description)</td>
<td>NA</td>
</tr>
<tr>
<td>Any double-dipping restrictions (Yes/No)? If yes, provide description.</td>
<td>• A minimum of 6 units must be unique to the minor</td>
</tr>
</tbody>
</table>
IV. **CURRENT COURSES**—using the table below, list all existing courses included in the proposed minor. You can find information to complete the table using the [UA course catalog](#) or [UAnalytics](#) (Catalog and Schedule Dashboard> “Printable Course Descriptions by Department” On Demand Report; right side of screen). If the courses listed belong to a department that is not a signed party to this implementation request, upload the department head’s permission to include the courses in the proposed minor and information regarding accessibility to and frequency of offerings for the course(s). Upload letters of support/emails from department heads to the “Letter(s) of Support” field on the UAccess workflow form. Add rows to the table, as needed.

Table IV is in a separate attachment.

We recognize the growing imperative for the University to provide on-line options for undergraduate education. We believe that the nature of the material that is the focus of this Minor will adapt well to on-line delivery, in part because of abundant availability of information regarding global change and its components. A student is currently able to complete the majority of the coursework necessary to fulfill the minor requirements online. SNRE faculty and leadership are engaged with the Office of Digital Learning personnel for on-line education program development and marketing. We are confident that all pedagogical and strategic objectives of the Minor can be met fully in the emerging hybrid model of University education that meets Quality Matters standards.
V. **NEW COURSES NEEDED** – using the table below, list any new courses that must be created for the proposed program. If the specific course number is undetermined, please provide level (ie CHEM 4**). Add rows as needed. Is a new prefix needed? If so, provide the subject description so Curricular Affairs can generate proposed prefix options.

No new courses are needed at this time, but we will welcome new or additional courses as they are developed or identified.

*In development (D); submitted for approval (S); approved (A)*

Subject description for new prefix (if requested). Include your requested/preferred prefix, if any:
VI. **FACULTY INFORMATION** - complete the table below. If UA Vitae link is not provided/available, attach a short CV (2-3 pages) to the end of the proposal or upload to the workflow form. UA Vitae profiles can be found in the [UA directory/phonebook](https://profiles.arizona.edu/). Add rows as needed. Delete the **EXAMPLE** rows before submitting/uploading. **NOTE:** full proposals are distributed campus-wide, posted on committee agendas and should be considered “publicly visible”. Contact [Pam Coonan](https://profiles.arizona.edu/person/pcoonan) and [Martin Marquez](https://profiles.arizona.edu/person/mmarmez) if you have concerns about CV information being “publicly visible”.

<table>
<thead>
<tr>
<th>Name</th>
<th>Role and Responsibilities</th>
<th>UA Vitae Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Koprowski</td>
<td>Director, SNRE</td>
<td><a href="https://profiles.arizona.edu/person/5quirre1">https://profiles.arizona.edu/person/5quirre1</a></td>
</tr>
<tr>
<td>Rachel Gallery</td>
<td>Associate Director, SNRE; internship supervisor; faculty advisor</td>
<td><a href="https://profiles.arizona.edu/person/rgallery">https://profiles.arizona.edu/person/rgallery</a></td>
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<tr>
<td>Don Falk</td>
<td>Minor Chair; faculty advisor; UA campus liaison; internship supervisor</td>
<td><a href="https://profiles.arizona.edu/person/dafalk">https://profiles.arizona.edu/person/dafalk</a></td>
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<tr>
<td>Katie Hughes</td>
<td>Senior Academic Advisor; campus advisor liaison</td>
<td></td>
</tr>
<tr>
<td>Dave Moore</td>
<td>Teach RNR 101, faculty advisor; internship supervisor; co-curriculum advisor, Climate Basics</td>
<td><a href="https://profiles.arizona.edu/person/davidjpmoore">https://profiles.arizona.edu/person/davidjpmoore</a></td>
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<tr>
<td>Joellen Russell</td>
<td>Teach GEOS 212; faculty advisor; internship supervisor; co-curriculum advisor, Climate Basics</td>
<td><a href="https://profiles.arizona.edu/person/jrussell">https://profiles.arizona.edu/person/jrussell</a></td>
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<tr>
<td>Katy Prudic</td>
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<td>Dereka Rushbrook</td>
<td>Internship supervisor; co-curriculum advisor, Social Perspectives</td>
<td><a href="https://profiles.arizona.edu/person/dereka">https://profiles.arizona.edu/person/dereka</a></td>
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<tr>
<td>Andrea Gerlak</td>
<td>Internship supervisor; co-curriculum advisor, Social Perspectives</td>
<td><a href="https://profiles.arizona.edu/person/agerlak">https://profiles.arizona.edu/person/agerlak</a></td>
</tr>
<tr>
<td>Gregg Garfin</td>
<td>Teach RNR 440; internship supervisor; curriculum advisor, Climate Solutions</td>
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<tr>
<td>Dave Breshears</td>
<td>Teach WSM 452; internship supervisor; faculty advisor</td>
<td><a href="https://profiles.arizona.edu/person/daveb">https://profiles.arizona.edu/person/daveb</a></td>
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<tr>
<td>Bill Smith</td>
<td>Teach RNR 429; internship supervisor; faculty advisor</td>
<td><a href="https://profiles.arizona.edu/person/wksmith">https://profiles.arizona.edu/person/wksmith</a></td>
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</tbody>
</table>
VII. STUDENT LEARNING OUTCOMES AND CURRICULUM MAP—describe what students should know, understand, and/or be able to do at the conclusion of this minor. Work with Office of Instruction and Assessment to create a curricular map using Taskstream. Include your curricular map in this section (refer to Appendix A for sample Curriculum Map generated using Taskstream).

Learning outcomes

1. **Define, differentiate, and explain** the nature of climate change and the importance of modern sustainable best practices across human societies;
2. **Associate, examine, and compare** how to infer meaning and inspire personal and collective action through written, visual, and verbal communication to a variety of audiences;
3. **Summarize, implement, and appraise** sustainable thinking as it relates to addressing current and future real-world climate change challenges and crises;
4. **Design, practice, and manage**, a personal and professional toolbox of sustainability knowledge, skills, and abilities useful for successful professional careers and engaged citizenship
# Curriculum Map:

**Minor in Climate, Change and Society**

**Courses and Activities Mapped to Minor in Climate, Change and Society**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Outcome 1: Define, differentiate, and explain climate change and the importance of sustainable best practices across human societies.</th>
<th>Outcome 2: Inspire personal and collective climate action through written, visual, and verbal communication to a variety of audiences.</th>
<th>Outcome 3: Summarize, implement, and appraise sustainable thinking as it relates to addressing current and future real-world climate change challenges and crises.</th>
<th>Outcome 4: Design, manage, and use a personal and professional toolbox of sustainability knowledge, skills, and abilities useful for professional and engaged citizenship.</th>
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<tbody>
<tr>
<td>Courses and Learning Activities</td>
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</tr>
<tr>
<td>Survey</td>
<td>Exit survey (Indirect)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>RNR 101</td>
<td>Course assignments</td>
<td></td>
<td></td>
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<tr>
<td>ATMO 336</td>
<td>Course assignments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legend:</td>
<td>I Introduced</td>
<td>P Practiced</td>
<td>A Assessed</td>
<td>I/P Introduced/Prac</td>
</tr>
</tbody>
</table>

**Legend:**
- **I** Introduced
- **P** Practiced
- **A** Assessed
- **I/P** Introduced/Practiced

Last Modified: 04/06/2020 08:46:10 AM
VIII. **ASSESSMENT PLAN FOR STUDENT LEARNING** - using the table below, provide a schedule for program assessment of intended student learning outcomes 1) while students are in the program and 2) after completion of the minor. Add rows as needed. Delete **EXAMPLE** row.

<table>
<thead>
<tr>
<th>Learning Outcomes</th>
<th>Sources(s) of Evidence</th>
<th>Assessment Measures</th>
<th>Data Collection Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome 1: Define, differentiate, and explain climate change and the importance of sustainable best practices across human societies.</td>
<td>Course-embedded assessments</td>
<td>Exams, papers, and other forms of student work</td>
<td>▪ Course assignments and projects in RNR 101</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▪ course assignments in ATMO 336</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▪ Minor completion exit survey</td>
</tr>
<tr>
<td>Outcome 2: Inspire personal and collective climate action through written, visual, and verbal communication to a variety of audiences.</td>
<td>Course-embedded assessments</td>
<td>Exams, papers, and other forms of student work</td>
<td>▪ Course assignments and projects in RNR 101</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▪ course assignments in ATMO 336</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▪ Minor completion exit survey</td>
</tr>
<tr>
<td>Outcome 3: Summarize, implement, and appraise sustainable thinking as it relates to addressing current and future real-world climate change challenges</td>
<td>Course-embedded assessments</td>
<td>Exams, papers, and other forms of student work</td>
<td>▪ Course assignments and projects in RNR 101</td>
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<td></td>
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<td>▪ course assignments in ATMO 336</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▪ Minor completion exit survey</td>
</tr>
<tr>
<td>Outcome 4: Design, manage, and use a personal and professional toolbox of sustainability knowledge, skills,</td>
<td>Course-embedded assessments</td>
<td>Exams, papers, and other forms of student work</td>
<td>▪ Course assignments and projects in RNR 101</td>
</tr>
</tbody>
</table>
and abilities useful for professional and engaged citizenship.

<table>
<thead>
<tr>
<th>Minor completion exit survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>course assignments in ATMO 336</td>
</tr>
</tbody>
</table>
IX. **ANTICIPATED STUDENT ENROLLMENT** - complete the table below. What concrete evidence/data was used to arrive at the numbers?

<table>
<thead>
<tr>
<th>5-YEAR PROJECTED ANNUAL ENROLLMENT</th>
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<tbody>
<tr>
<td><strong>1</strong>&lt;sup&gt;st&lt;/sup&gt; Year</td>
</tr>
<tr>
<td>Number of Students</td>
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</tbody>
</table>

Data/evidence used to determine projected enrollment numbers:

Enrollment in closely related minors at peer institutions, UCSD and University of Montana. Past four years of enrollment in minor curriculum courses (see attached).

X. **ANTICIPATED MINORS AWARDED** - complete the table below, beginning with the first year in which minors will be awarded. How did you arrive at these numbers? Take into consideration departmental retention rates.

<table>
<thead>
<tr>
<th>PROJECTED MINORS AWARDED ANNUALLY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong>&lt;sup&gt;st&lt;/sup&gt; Year</td>
</tr>
<tr>
<td>Number of Minors</td>
</tr>
</tbody>
</table>

Data/evidence used to determine number of anticipated minors awarded annually:

Enrollment in closely related minors at peer institutions, UCSD and University of Montana. Past four years of enrollment in minor curriculum courses (see attached).
XI. PROGRAM DEVELOPMENT TIMELINE - describe plans and timelines for 1) marketing the minor and 2) student recruitment activities.

1). Marketing
During the first year, we will work with CALS marketing to develop an attractive webpage for the minor on the School of Natural Resources website as well as the lead generation website for the major, https://naturalresources.arizona.edu/. As soon as the minor is approved, announcements and promotional materials will be sent to all advisors via UPAC. Fliers will be posted around campus. We will request brief guest speaker spots or instructor announcements in the beginning of classes that are part of the minor curriculum. Additionally, we will place advertisements in the Daily Wildcat and via social media. During subsequent years, we will update and maintain the minor webpages as needed. CALS’s marketing team will also create a video profile of a student in the program to use on websites, social media posts, and YouTube.

2). Recruitment
Students in Natural Resources are organizing a Global Change club (applying through ASUA) that will help recruit students to the minor. Initially, affiliated faculty will continue to actively participate in promoting minor in classrooms and with student clubs (Students for Sustainability, Marine Sciences Awareness, etc.) and with special outreach to fields of study that could greatly influence our society’s trajectory in the coming century; Political Science, Journalism, Law, Business, etc. Social Media. The minor will be advertised during all on campus tabling events where majors are represented (Meet Your Major fair, Career Days, etc.). These activities will continue beyond the first two years of the program.
XII. **DIVERSITY AND INCLUSION**—describe how you will recruit diverse students and faculty to this minor. In addition, describe retention efforts in place or being developed in order to retain students.

Climate change and its affects are linked directly to social and environmental justice (Levy and Patz 2015). Communities of color and economically disadvantaged people are affected disproportionately by global change. These disparities includes exposure to environmental contamination, heat and drought stress, crop failures, water shortages, unsafe workplace conditions, and disease. Global change interacts with the drivers of economic inequality and poverty to produce greater effects on communities of color worldwide. Within the US, Hispanic, African American, and Native American communities are far more likely to be exposed to the physical and economic consequences of global change as it is expressed where they live and work. As a consequence, we consider recruiting students from these affected communities into the Minor to be a central goal. A recent National Academy Study (2020) noted that diversifying the community of practice in research may be as important as the societal implications of climate change itself. As a fully-recognized Hispanic Serving Institution that is also a leading R1 University with leading expertise in global change, UA is uniquely positioned to deliver global change education to a diverse student body.

This minor highlights the need for listening, collaboration, and innovation among people with different perspectives, values, and backgrounds to create climate resilient economies and positive social impact. The structure of the Minor reflects this intention: by leading students from problem analysis to climate solutions, we will encourage students to think creatively about how climate justice can be applied to their own communities. We will collaborate with other campus centers and community stakeholders to amplify these student-driven thoughts, experiences, and creations to improve human societies in light of climate change. This includes cooperating with important UA initiatives that seek to build a diverse and inclusive student body in areas critical to sustainability, such as the Haury Program in Environment and Social Justice (https://www.haury.arizona.edu/) and the Arizona Science, Engineering, and Math Scholars Program (ASEMS, https://asems.arizona.edu/home).

**Cited:**
https://doi.org/10.17226/25585
BUDGET PROJECTION FORM

Name of Proposed Program or Unit: School of Natural Resources & the Environment

Budget Contact Person: Bethina Krogsgaard

<table>
<thead>
<tr>
<th>METRICS</th>
<th>1st Year 2020 - 2021</th>
<th>2nd Year 2021 - 2022</th>
<th>3rd Year 20__ - 20__</th>
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<td>Net increase in college SCH UG</td>
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<td>Net increase in annual college enrollment Grad</td>
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<td>Net increase in college SCH Grad</td>
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<td>Number of enrollments being charged a Program Fee</td>
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<td>New Sponsored Activity (MTDC)</td>
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<tr>
<td>Number of Faculty FTE</td>
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</tr>
</tbody>
</table>

FUNDING SOURCES

Continuing Sources
- UG RCM Revenue (net of cost allocation) $7,626 $15,252 $22,878
- Grad RCM Revenue (net of cost allocation)
- Program Fee RCM Revenue (net of cost allocation)
- F and A Revenues (net of cost allocation)
- UA Online Revenues
- Distance Learning Revenues
- Reallocation from existing College funds (attach description)
- Other Items (attach description)
  Total Continuing $7,626 $15,252 $22,878

One-time Sources
- College fund balances
- Institutional Strategic Investment
- Gift Funding
- Other Items (attach description)
  Total One-time $- $- $-

Total Sources $7,626 $15,252 $22,878

EXPENDITURE ITEMS

Continuing Expenditures
- Faculty
- Other Personnel
- Employee Related Expense
- Graduate Assistantships
- Other Graduate Aid
- Operations (materials, supplies, phones, etc.)
- Additional Space Cost
- Other Items (attach description)
  Total Continuing $- $- $- $-

One-time Expenditures
- Construction or Renovation
- Start-up Equipment
- Replace Equipment
- Library Resources
- Other Items (attach description)
  Total One-time $- $- $- $-

Total Expenditures $- $- $- $-

Net Projected Fiscal Effect $7,626 $15,252 $22,878
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<td>Envir Stds: Ideas/Institutions</td>
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<td>GEOG 430</td>
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<td>RNR 101*</td>
<td>Global Sustainability</td>
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<td>4</td>
<td>18</td>
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<tr>
<td>RNR 150C1*</td>
<td>Sustainable Earth</td>
<td>139</td>
<td>30</td>
<td>142</td>
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<td>218</td>
<td>59</td>
<td>323</td>
<td>208</td>
<td></td>
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<tr>
<td>RNR 429</td>
<td>Ecological Climatology</td>
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<tr>
<td>RNR 458</td>
<td>Ecosystem Ecology</td>
<td>16</td>
<td>14</td>
<td>19</td>
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<td>7</td>
<td>64</td>
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<td><strong>Grand Total</strong></td>
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<td><strong>743</strong></td>
<td><strong>908</strong></td>
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<td><strong>836</strong></td>
<td><strong>632</strong></td>
<td><strong>950</strong></td>
<td><strong>575</strong></td>
<td><strong>1183</strong></td>
<td><strong>986</strong></td>
<td><strong>7455</strong></td>
</tr>
</tbody>
</table>

*credit allowed for only RNR 101 or RNR 150C1
Dr. John Koprowski  
Director  
School of Natural Resources and the Environment  
University of Arizona  
Tucson, Arizona  

Dear Dr. Koprowski:

I have carefully reviewed the course structure and justification for the Minor in Climate Change and Society at the University of Arizona, and I enthusiastically support its establishment. It is precisely the kind of program needed at this critical time, and the UArizona is precisely the university to offer this education to our state, our nation, and our world. The breadth of the proposed offering underscores what I’ve always known...that the UArizona is rich with expertise in a way that few places are. My very strong support for this Minor comes from a number of perspectives.

During my time as Director of the Office of Climate and Society at the National Oceanic and Atmospheric Administration (1986 – 2003) I had the pleasure of creating and managing a number of research programs aimed at advancing the understanding of the relationship between human systems and our climate system. These include the Regional Integrated Sciences and Assessments Program of which the UArizona Climate Assessment of the Southwest (CLIMAS) and the International Research Institute for Climate and Society (IRI) at Columbia University are two. While successful as research endeavors, these programs miss the opportunity to educate the next generation of thinkers and doers with the skills and understanding needed to succeed, regardless of the careers students might ultimately choose.

During my time as ASU President Michal Crow’s Senior Advisor for Institutional Transformation (2003 – 2011) I was tasked with designing and establishing the Global Institute of Sustainability and its School of Sustainability, which included Minors in Sustainability. To my dismay at the time, the offerings we came up with lacked the breadth of what I had hoped for, especially in the natural and physical sciences. This, because ASU simply didn’t have the personnel to cover those critically important topics. At the UArizona, we do, and the Minor as proposed, benefits from our diverse, world class in-house expertise.

In addition to the above, I also bring the perspective of one who serves on the Boards of Directors of a number of national not-for-profit environmental organizations. These include as past chair at the National Council for Science and the Environment (NCSE) and as chair at
Second Nature, which oversees the Climate Leadership Network and the University Climate Change Coalition (UC3), in which UArizona President Bobby Robbins has recently become very engaged. I also serve on the Advisory Council of George Washington University’s Planet Forward Program led by Emmy Award winning journalist Frank Sesno. I mention this because, over the years these organizations have discussed ways to encourage universities to do precisely what is proposed…to provide all college students with an understanding of the complex world we live in, in the context of a changing climate. These discussions have led to little progress at a national level, so over the weekend I explored with them (fellow board members and organizational leadership) the Minor being proposed. Without exception they enthusiastically endorsed our initiative, indicating their willingness to promote the Minor through their networks, which, in aggregate, number well over 100,000 individuals across the globe.

Over the years, I have also served on climate-related panels of the National Academies of Science, as lead author of National Climate Assessments, and as program reviewer of academic sustainability programs in the U.S. and abroad. These experiences give me a rich exposure of what is being offered elsewhere. I can tell you with confidence, that this Minor is unique in its breadth, depth and quality of offerings.

This brings me to perhaps the most valuable of perspectives, that of (interim) Director of the Arizona Institutes for Resilience at the University of Arizona. As you know, this newly formed institute results from President Bobby Robbins’, Provost Liesl Folks’ Senior Vice President for Research and Innovation, Betsy Cantwell’s, and Senior Vice President for Marketing and Communications, Steve Moore’s strong desire to promote Environment at the UArizona. On March 1, 2020 the Environment Design Committee formed by Dr. Cantwell, and which I chaired, presented her with our recommendations. She was very pleased with the vision and recommendations we offered her, and she encouraged us to proceed with implementation. Amongst the recommendations was to increase our educational offerings, including, but not limited to an expanded “experiential” learning offering for undergraduates. In addition, the committee proposed that the UArizona become the “go to” place for all students interested in being part of the solution to the global climate crisis. The Minor being proposed is precisely the very best next step in that direction.

Further, by incorporating the use of the many valuable UArizona assets like the Biosphere2, the Desert Laboratory on Tumamoc Hill, the Tree Ring Lab, to name just a few, along with our countless environmental field experiments and our relationships with the Southern Arizona management and broader communities, we can offer our students an unparalleled learning experience…something which, as you are aware, Provost Folks is keenly interested in seeing us advance. From what I know, I am confident that this Minor supports directly the UArizona’s senior leadership’s commitment to strengthen and elevate environmental education as an avenue for institutional growth and to promote our global reputation of expertise at the nexus of climate change and society.
For the reasons articulated above, and in particular from my position as interim director of AIR, I cannot be more supportive of the proposal to establish the Minor in Climate Change and Society at the UArizona, and with absolutely no reservation offer the full backing of my institute and its experts to advance its implementation. Please let me know how we might help.

Please don’t hesitate to reach out if you have questions or would like further input.

Sincerely and with best regards,

[Signature]

James L. Buizer
Interim Director
Arizona Institutes for Resilience
University of Arizona
Tucson, Arizona
Sincerely,

John L. Koprowski, Professor and Director
Wildlife Conservation and Management
School of Natural Resources & the Environment
ENR2 N333
1064 E. Lowell Street
PO Box 210137
Tucson, AZ 85721 USA

Email: squirrel@ag.arizona.edu
Phone: +1 (520) 626-5895
Web: www.ag.arizona.edu/research/redsquirrel
Research Gate: https://www.researchgate.net/profile/John_Koprowski

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To Whom It May Concern:

I approve of the use of the following course for the proposed minor, Climate Change and Society, and enthusiastically support the minor’s creation.

AIS 403 Globalization and Indigenous People

Sincerely,

Ronald L. Trosper, Professor
PI, Sloan Indigenous Graduate Program
American Indian Studies
The University of Arizona
Harvill 237A, 1103 E. 2nd Street
P.O. Box 210076
Tucson, Arizona 85721-0076
520-621-7108; fax 520-621-7952
web:  http://www.ais.arizona.edu/
April 1, 2020

Dear Dr. Koprowski,

We would be happy to include AREC 360 The Poverty and Development of Nations as an elective option for your new minor in Climate Change and Society. For the moment, there is ample space for students pursuing a minor in your new program. Should space become constraining, we will seek a larger classroom to accommodate all your majors and minors. We enthusiastically welcome all SNRE students, be they majors and minors in your new program or in existing programs, into AREC 360.

Please be advised we have two other classes, which would be excellent general education options for your majors and minors:

    AREC150C Sustaining Life: The Global Economy of Food (Tier 1)
    AREC210 Understanding the World of Commerce (Tier 2)

We wish you success in launching and growing your new minor in Climate Change and Society.

Sincerely,

Gary Thompson
Professor and Department Head
Department of Agricultural and Resource Economics
College of Agriculture & Life Sciences
The University of Arizona
McClelland Park 304C
650 N. Park Avenue
Tucson, AZ 85719-0078
Dear Dr. Koprowski,

I approve of the use of the following courses for the proposed minor, Climate Change and Society, and enthusiastically support the minor’s creation.

GEOS 212 (Intro to Oceanography)
GEOS 220 (Environmental History of the Southwest)
GEOS 342 (History of Earth’s Climate)
GEOS 412 (Ocean Sciences)
GEOS 478 (Global Change)

Sincerely,

Barbara Carrapa
(Professor and Department Head of Geosciences)
John

I’m glad to see that you are proceeding with a minor in Climate Change and Society. We are happy to approve inclusion of ENVS 210 Fundamentals of Environmental Science and Sustainability, ENVS 310 Ecosystem Health and Justice, and ENVS 410 Microbial Biogeochemistry and Global Change in this minor degree program. Please let us know if we can do more to support you.

Jim

Dr. Jim Walworth
Professor and Associate Head
Department of Soil, Water and Environmental Science
University of Arizona, Tucson AZ
(520) 626-3364
jlw1@email.arizona.edu

From: Koprowski, John L - (5quirre1) <5quirre1@ag.arizona.edu>
Sent: Wednesday, April 1, 2020 3:55 PM
To: Chorover, Jon - (chorover) <chorover@arizona.edu>; Walworth, Jim - (jlw1) <Walworth@ag.arizona.edu>
Cc: Hughes, Katie Marie - (khughes) <khughes@arizona.edu>; Koprowski, John L - (5quirre1) <5quirre1@ag.arizona.edu>
Subject: Letter of support to use ENVS courses in our Climate Change & Society

Dear Jim and Jon,

As you know, the School of Natural Resources and the Environment is developing a minor in Climate Change and Society and requests to use the following course from your department. These will be among a list of choices so we don’t foresee this adding a great burden to your instructors. Please let us know if you approve by providing us with a letter of support (or email) indicating that you approve of the use of these courses. Please feel free to copy and/or edit the text below into your letter as you see fit. Many thanks and let us know if you have any questions!

--------------------------------
To Whom It May Concern:

I approve of the use of the following course for the proposed minor, Climate Change and Society, and enthusiastically support the minor’s creation.

ENVS 210 Fundamentals of Environmental Science and Sustainability
Sincerely,

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Sincerely,

John L. Koprowski, Professor and Director  
Wildlife Conservation and Management  
School of Natural Resources & the Environment  
ENR2 N333  
1064 E. Lowell Street  
PO Box 210137  
Tucson, AZ  85721  USA

Email: squirrel@ag.arizona.edu  
Phone: +1 (520) 626-5895  
Web: www.ag.arizona.edu/research/red squirrel  
Research Gate: https://www.researchgate.net/profile/John Koprowski
4/7/2020

To Whom It May Concern:

I approve of the use of the following course for the proposed minor, Climate Change and Society, and enthusiastically support the minor’s creation.

RCSC 480 Sustainable Consumption & Retailing

Sincerely,

Laura Scaramella, Ph.D.
Director, John and Doris Norton School of Family and Consumer Sciences
To Whom It May Concern:
I approve of the use of the following course for the proposed minor, Climate Change and Society, and enthusiastically support the minor’s creation.
GER 327 Recycling Culture: Environmentalism Made in Germany

All the best, Barbara Kosta

Get Outlook for iOS

From: Koprowski, John L - (5quirre1) <5quirre1@ag.arizona.edu>
Sent: Wednesday, April 1, 2020 4:00:31 PM
To: Kosta, Barbara - (bkosta) <bkosta@arizona.edu>
Cc: Hughes, Katie Marie - (khughes) <khughes@arizona.edu>; Koprowski, John L - (5quirre1) <5quirre1@ag.arizona.edu>
Subject: Request for letter of support to use courses in our minor...

Dear Barbara:

The School of Natural Resources and the Environment is developing a minor in Climate Change and Society and requests to use the following course from your department. These will be among a list of choices so we don’t foresee this adding a great burden to your instructors. Please let us know if you approve by providing us with a letter of support (or email) indicating that you approve of the use of these courses. Please feel free to copy and/or edit the text below into your letter as you see fit. Many thanks and let us know if you have any questions!

To Whom It May Concern:

I approve of the use of the following course for the proposed minor, Climate Change and Society, and enthusiastically support the minor’s creation.

GER 327 Recycling Culture: Environmentalism Made in Germany

Sincerely,

______________________________

Sincerely,
John L. Koprowski, Professor and Director
Wildlife Conservation and Management
School of Natural Resources & the Environment
John,

I support including these courses in the new minor.

Elliott Cheu sent over the proposal docs to me earlier this morning.

I think, 436A | Fundamentals of the Atmospheric Sciences would fit in the Climate Basics category

Also ENVS 454 Water Harvesting would seem to be appropriate under Sustainable Actions and Solutions

Also it seems like you have avoided tier 1 gen ed course which makes sense. If opinions change about that exclusion ATMO 170 and HWRS 170 both offer a solid intro to earth system processes including human actions and activities.

Thanks,

Tom
us know if you approve by providing us with a letter of support (or email) indicating that you approve of the use of these courses that supersedes your previous note of support. Please feel free to copy and/or edit the text below into your letter as you see fit. Many thanks and let us know if you have any questions!

To Whom It May Concern:

I approve of the use of the following course for the proposed minor, Climate Change and Society, and enthusiastically support the minor’s creation.

HWRS 201 Water Science and the Environment
ATMO 336 Weather, Climate, and Society
ATMO 421 Physical Climatology

Sincerely,

John L. Koprowski, Professor and Director
Wildlife Conservation and Management
School of Natural Resources & the Environment
ENR2 N333
1064 E. Lowell Street
PO Box 210137
Tucson, AZ 85721 USA

Email: squirrel@ag.arizona.edu
Phone: +1 (520) 626-5895
Web: www.ag.arizona.edu/research/redsquirrel
Research Gate: https://www.researchgate.net/profile/John Koprowski
From: Futrell, Alison - (afutrell) <afutrell@arizona.edu>
Sent: Wednesday, April 1, 2020 6:47 PM
To: Koprowski, John L - (5quirre1) <5quirre1@ag.arizona.edu>
Cc: Vetter, Jeremy A - (jvetter) <jvetter@arizona.edu>
Subject: Re: Request for letter of support to use your courses in our minor - Climate Change & Society

Dear John:

I certainly do enthusiastically support the creation of this minor!

I am wondering if you're familiar with our other courses that seem potentially relevant, specifically HIST 355: US Environmental History; HIST 356: Global Environmental History and HIST 428: Food, Health and Environment in History. Might any of these fit into your plans?

All best,

Alison

Prof. Alison Futrell
Head
Dept. of History
University of Arizona
She/her/hers

From: Koprowski, John L - (5quirre1) <5quirre1@ag.arizona.edu>
Sent: Wednesday, April 1, 2020 4:25 PM
To: Futrell, Alison - (afutrell) <afutrell@arizona.edu>
Cc: Hughes, Katie Marie - (khughes) <khughes@arizona.edu>; Koprowski, John L - (5quirre1) <5quirre1@ag.arizona.edu>
Subject: Request for letter of support to use your courses in our minor - Climate Change & Society

Dear Alison,

...
As you know, the School of Natural Resources and the Environment is developing a minor in Climate Change and Society and requests to use the following course from your department. These will be among a list of choices so we don’t foresee this adding a great burden to your instructors. Please let us know if you approve by providing us with a letter of support (or email) indicating that you approve of the use of these courses. Please feel free to copy and/or edit the text below into your letter as you see fit. Many thanks and let us know if you have any questions!

_____________________________

To Whom It May Concern:

I approve of the use of the following course for the proposed minor, Climate Change and Society, and enthusiastically support the minor’s creation.

HIST 247 Nature and Technology in U. S. History

Sincerely,

Sincerely,

John L. Koprowski, Professor and Director
Wildlife Conservation and Management
School of Natural Resources & the Environment
ENR2 N333
1064 E. Lowell Street
PO Box 210137
Tucson, AZ  85721  USA

Email: squirrel@ag.arizona.edu
Phone: +1 (520) 626-5895
Web: www.ag.arizona.edu/research/redsquirrel
Research Gate:  https://www.researchgate.net/profile/John_Koprowski
April 9, 2020

John L. Koprowski, Professor and Director
Wildlife Conservation and Management
School of Natural Resources & the Environment

Re: Support for Inclusion of Courses in Proposed Minor in Climate Change and Society

Dear John,

The College of Law approves the use of the following courses for the proposed minor, Climate Change and Society, and enthusiastically supports the minor’s creation:

LAW 454 Environmental Law and Policy
LAW 459 Public International Environmental Law

Sincerely,

Marc L. Miller
Dean and Ralph W. Bilby Professor of Law
Wednesday April 1, 2020

To Whom It May Concern:

I approve of the use of the following course for the proposed minor, Climate Change and Society, and enthusiastically support the minor’s creation.

MNE 201 - Nonrenewable Resources and Human Civilizations

Sincerely,

Moe Momayez, PhD
Interim Department Head
moe.momayez@arizona.edu
520-621-6580
March 30 2020

To Whom It May Concern:

I approve of the use of the following course for the proposed minor, Climate Change and Society, and enthusiastically support the minor's creation.

PHIL 323 Environmental Ethics
PHIL 419 The Ethics & Economics of Environmental Policy

Sincerely,

Jason Turner
Professor and Head, Department of Philosophy
The University of Arizona
April 2, 2020

To Whom It May Concern:

I approve of the use of the following courses for the proposed School of Natural Resources and the Environment minor, Climate Change and Society, and enthusiastically support the creation of the minor.

- PLG 202 Cities of the World: An International City Planning Perspective
- PLG 256 Sustainable Cities and Societies
- PLG 408 Planning for Urban Resilience
- PLG 497S Sustainable Urban Development and Design

Sincerely,

[Signature]

Lauri Macmillan Johnson
Director and Professor
April 2, 2020

To Whom It May Concern:

I approve of the use of the following course for the proposed minor, Climate Change and Society, and support the minor’s creation.

RSSS 305 Russian and American Foodways: Cultivation, Culture, and Connectedness

Sincerely,

John Leafgren
Head, Department of Russian and Slavic Studies
305 Learning Services Building
University of Arizona
Tucson, AZ 85721

520-621-5825 leafgren@email.arizona.edu
April 6, 2020

Dear Dr. Koprowski:

The School of Journalism supports the use of our courses in your new Minor in Climate Change and Society. We are so pleased to be a part of this minor. We look forward to working with you and wish you great success. So long as seats are available, we agree to give regular access to the courses listed below to students in the Minor in Climate Change and Society:

- JOUR 455 Environmental Journalism
- JOUR 465 Issues in Covering Science and the Environment

There is no conflict with School of Journalism programs, and there are certainly opportunities for synergy moving forward. We are eager to welcome your students into our relevant courses.

If I can be of any assistance to you with this minor, please do not hesitate to contact me. The School of Journalism looks forward to our collaboration.

With best wishes,

Carol B. Schwalbe
Professor | Director
School of Journalism
University of Arizona

520.300.0693
cschwalbe@email.arizona.edu
April 2nd 2020

To whom it may concern

The School of Geography and Development is pleased to be asked to participate in the new proposed minor in Climate Change and Society. I have consulted with faculty who teach the courses below and they are happy to receive students in the minor.

I specifically approve of the use of the following courses offered through the School of Geography and Development for the minor Climate Change and Society.

EVS 374 Geography, Social Justice and the Environment  
EVS 363 Climate Change: Human Causes, Social Consequences and Sustainable Responses  
EVS 462 Environmental Law, Geography and Society  
EVS 445 Geographies of International Environmental Governance  
GEOG 230 Our Changing Climate  
GEOG 260 Environmental Studies: Ideas and Institutions  
GEOG 302 Introduction to Sustainable Development  
GEOG 404 Politics of Nature  
GEOG 430 The Climate System

Sincerely,

[Signature]

Regents Professor of Geography and Development, University of Arizona
April 2, 2020

To Whom It May Concern:

I approve of the use of the following course for the proposed minor, Climate Change and Society, and enthusiastically support the minor's creation.

PA 461 Global Climate Change: Integrating Science, Policy, and Decision Making

Sincerely,

Edella Schlager
Professor & Director
<table>
<thead>
<tr>
<th>Minor name, institution</th>
<th>Proposed UA Program: Climate Change: Science and Solutions</th>
<th>Peer 1: Climate Change Studies, University of Montana</th>
<th>Peer 2: Climate Change Studies, University of California, San Diego</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minor program description</strong></td>
<td>People, animals, plants, and all living organisms are being impacted by long-term changes in temperatures and ecosystems around the world. This global change is an increasingly dominant fact of life for all human and natural systems, and we can see the impacts all around us. In many parts of the world, governments and organizations have already been forced to adapt to ensure basic services that are essential for human civilization— Including water, food, clean air, livable climate, renewable resources, and natural areas—will continue to be available for their communities. Climate change is also creating unprecedented new opportunities for innovation and economic growth; the jobs of the future are already aligning with solving the tremendous reorganization of the global economy driven by this global change. College students today will live their entire personal and professional lives in a world that is being shaped by these rapidly changing forces; there is no part of our world that will not be touched by global change. The Minor in Climate Change and Society is designed to supplement the career interests of students in any field who want to understand how global change will affect their professional and personal lives and adapt to new emerging career opportunities. The CCS Minor curriculum ensures basic competency in three primary areas, taking advantage of UArizona's expert faculty. First, students will have the opportunity to understand the physical and natural realities of global change, including what is driving these changes and how they are being manifested in today’s world. The component of the Minor is designed to enable students, as current and future citizens, to distinguish fact from fiction, and learn important skills in critical thinking about important global issues. Second, the Minor will examine how societies are adapting to address these challenges both</td>
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<table>
<thead>
<tr>
<th>Minor name, institution</th>
<th>Proposed UA Program: Climate Change: Science and Solutions</th>
<th>Peer 1: Climate Change Studies, University of Montana</th>
<th>Peer 2: Climate Change Studies, University of California, San Diego</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minor program description</strong></td>
<td>The University of Montana offers the nation's first interdisciplinary, undergraduate degree program in climate change. The minor in Climate Change Studies (CCS) combines rigorous training in sciences with coursework in ethics and policy to offer students a unique, multidisciplinary understanding of climate change. The CCS minor provides students opportunity to become informed and engaged on the issue — from multidisciplinary coursework, to field studies, to study abroad and service learning opportunities. “The climate change topic is rapidly evolving from only an earth science issue to a technological, economic and sociological issue. We have designed a broad interdisciplinary curriculum to reflect this expanding focus.” Dr. Steve Running, Climate Change Studies Program Director, and a lead author on the Nobel Prize winning Intergovernmental Panel on Climate Change The CCS minor educates students in three areas of the climate change issue: science, society, and solutions. Coursework in the minor provides a foundation that enables students to engage the scientific, societal and political dimensions of global climate change. Further, the focus on solutions with its orientation toward applied learning helps students develop critical thinking and problem solving skills. The Climate Change Studies Program is a joint program with the Davidson Honors College, College of Forestry and Conservation, College of Humanities and Sciences, and Missoula College's Energy Technology Program that draws on the expertise of faculty across the university and includes students from more than 20 majors.</td>
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<tr>
<th>Minor name, institution</th>
<th>Proposed UA Program: Climate Change: Science and Solutions</th>
<th>Peer 1: Climate Change Studies, University of Montana</th>
<th>Peer 2: Climate Change Studies, University of California, San Diego</th>
</tr>
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<tbody>
<tr>
<td><strong>Minor program description</strong></td>
<td>- Select two peers for completing the comparison chart from (in order of priority) ABOR-approved institutions, AAU members, and/or other relevant institutions recognized in the field. The comparison chart will be used to identify typically required coursework, themes, and experiences for minor programs within the discipline. The comparison programs are not required to have the same minor name as the proposed UA program. Information for the proposed UA program must be consistent throughout the proposal documents. Delete EXAMPLE columns once ready to submit/upload.</td>
<td></td>
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</table>

<table>
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<tr>
<th>Minor name, institution</th>
<th>Proposed UA Program: Climate Change: Science and Solutions</th>
<th>Peer 1: Climate Change Studies, University of Montana</th>
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<tbody>
<tr>
<td><strong>Minor program description</strong></td>
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</table>
**List any special requirements to declare/admission to this minor (completion of specific coursework, minimum GPA, interview, application, etc.)**

- Meeting with minor advisor to go over the requirements
- Meeting with minor program coordinator to go over the requirements and discuss interests and degree plans

**Minimum total units required**

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<tbody>
<tr>
<td>21</td>
<td>21</td>
<td>28 units (quarter system)</td>
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**Minimum upper-division units required**

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<td>12</td>
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**Total transfer units that may apply to minor**

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<tr>
<td>6</td>
<td>NA</td>
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<tr>
<th>Target careers</th>
<th>Will be highly variable and based on students' chosen career field.</th>
<th>Sustainability coordinators or educators; incorporation of climate lens in chosen career or graduate field of study; highly variable as students in the minor represent 20-25 majors on campus.</th>
</tr>
</thead>
</table>

<table>
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<tr>
<th>Minimum total units required</th>
<th>21</th>
<th>21</th>
<th>28 units (quarter system)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum upper-division units required</td>
<td>12</td>
<td>NA</td>
<td>20</td>
</tr>
<tr>
<td>Total transfer units that may apply to minor</td>
<td>6</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

**List any special requirements to declare/admission to this minor (completion of specific coursework, minimum GPA, interview, application, etc.)**

**Introductory Course**

Introduction to Climate Change: Science and Society, CCS 103X, 3 cr, Fall semester

This is an introductory and foundational course on the scientific and social dimensions of global climate change. The course provides students with a breadth of knowledge that builds connections across the scientific, social, political, and technological dimensions of this complex global issue. This course counts for General Education credit in the "X" perspective. It is open to all students and required for the Climate Change Studies minor. There is also a section for Honors students.

**Climate Change Science (natural and physical sciences)**

- **Climate Change: Solutions**
  - a. Required Course. Students choose one of the following courses:
    - SIO 109/POLI 117. Bending the Curve: Solutions to Climate Change (recommended)
    - ESYS 103/MAE 124. Environmental Challenges: Science and Solutions
    - BIBC 140. Our Energy Future—Sustainable Energy Solutions
  - b. Climate Change Science elective. Students select at least one of the following electives:
    - SIO 25. Climate Change and Society
    - SIO 117. The Physical Basis of Global Warming (recommended for students in science, math or engineering majors)
  - b. Climate change science elective. Students select at least one of the following electives:
    - SIO 10. The Earth
    - SIO 20. The Atmosphere
    - SIO 35. Water
Minor requirements. List all minor requirements including core and electives. Courses listed must include course prefix, number, units, and title. Mark new coursework (New). Include any limits/restrictions needed (house number limit, etc.). Provide email(s)/letter(s) of support from home department head(s) for courses not owned by your department.

**Solutions to Climate Change**

**Course Prefix, Number, and Units**

- **Spring, online course (not offered in 2020)**
  - Global Cycles and Climate: NRSM 408 (UG), 3 cr., Spring even years
  - Ecosystem Climatology: NRSM 418 (UG), 3 cr., Spring odd years
  - Seminar in Paleoclimatology: GPHY 525, 3 cr., Fall, Interim
  - Open to seniors

- **SIO 40. Life and Climate on Earth**
  - SIO 50. Introduction to Earth and Environmental Sciences
  - EVS 10. Introduction to Environmental Systems
  - ENV 30. Environmental Issues: Natural Sciences
  - BIBC 140. Our Energy
  - Future—Sustainable Energy Solutions (if not already used for requirement 1.a. above)
  - BIEB 174. Ecosystems and Global Change
  - BIEB 182. Biology of Global Change
  - CHEM 171. Environmental Chemistry I
  - CHEM 172. Environmental Chemistry II
  - CHEM 173. Atmospheric Chemistry
  - EVS 102. The Solid and Fluid Earth
  - EVS 103/MAE 124. Environmental Challenges: Science and Solutions (if not already used for requirement 1.a. above)
  - MAE 118. Introduction to Energy Systems
  - MAE 119. Introduction to Renewable Energy
  - Solar and Wind
  - MAE 120. Introduction to Nuclear Energy
  - MAE 122. Flow and Transport in the Environment
  - SIO 108. Introduction to Palaeoclimatology
  - SIO 115. Ice and the Climate System
  - SIO 116. Climate Change & Global Health: Understanding the Mechanisms
  - SIO 117. The Physical Basis of Global Warming (if not already used for requirement 2.a., above)
  - SIO 143. Ocean Acidification
  - SO164/ANAR 164. Maritime Archaeology
  - SIO 173. Dynamics of the Atmosphere and Climate
  - SIO 174. Chemistry of the Atmosphere and Oceans

- **Climate Change and Society**

- **SIO 20. Science, Technology, and Society**
  - COMM 171. Environmental Communication
  - ECON 131. Environmental Economics
  - ECON 132. Energy Economics
  - ETHN 102. Science and Technology in Society: Race/Gender/Class
  - ETHN 103. Environmental Racism
  - HISC 180. Science and Public Policy
  - MGG 166. Business Ethics and Corporate Responsibility
  - MGG 167. Social Entrepreneurship
  - PHIL 148. Philosophy and the Environment
  - POLI 1021. The Politics of Regulation
  - POLI 104. Environmental Law and Policy
  - POLI 104. Science, Technology, and the Law
  - POLI 162. Environmental Policy
  - PSYC 104. Social Psychology
  - PSYC 137. Social Cognition
  - PSYC 148. Psychology of Judgement and Decision
  - SIO 109/POLI 117. Bending the Curve: Solutions to Climate Change (if not already used for requirement 1.a., above)
  - SIO 114. The Science and Analysis of Environmental Justice
Internship, practicum, applied course requirements (Yes/No). If yes, provide description.

- Internship, independent study, or practicum is not required, but is an option in the solutions section. Must be pre-approved by faculty.

- Required internship, practicum, or service learning project is required as part of Climate Change Solutions: Category A.

- Required Practicum consisting of an internship, independent study or research.

Additional requirements (provide description)

- NA

- NA

- NA

*Note: comparison of additional relevant programs may be requested.
REPORT TO FACULTY SENATE

FROM: President Robert Robbins http://president.arizona.edu/

DATE: November 2, 2020

ACCOMPLISHMENTS/GOALS:

COVID-19 Testing
- Approximately 1,000 antigen tests are being administered to asymptomatic students and employees per day with a positivity rate averaging less than 1% in October
- A pre-break testing blitz is scheduled for 11/9/2020 – 11/16/2020, which provides students with enough time to isolate in case of a positive test.
- Antibody tests are available by appointment for students and employees through 11/6/2020
- Dr. Bhattacharya and Dr. Nikolich-Žugich antibody research study published

November 26-29 Break Campus Exit Strategy
- The COVID-19 Response Team and Public Health Advisory Campus Team, in collaboration with several campus partners, developed Guidance on Student Holiday Travel and required main campus students who reside in the Tucson or surrounding areas to complete a Holiday Travel Survey by 11/1/2020. Preliminary survey results as of 10/28/2020 showed the following distribution of student holiday travel plans:
  - Travel for Thanksgiving break and complete semester remotely (32%)
  - Travel for Thanksgiving break and return to Tucson to complete semester (15%)
  - Remain in Tucson for Thanksgiving break (53%)

Student Flu Shot Efforts
- Campus Health has administered 2,049 flu shots with additional flu shot clinics scheduled this month.
- In addition to administering flu shots at the Campus Health facility, Campus Health has partnered with the Testing team to setup mobile flu shot clinics at testing locations in North Rec and SUMC. Thus far, 550 people coming for a COVID-19 antigen test have also received a flu shot.
- Campus Health also partnered with Fraternity & Sorority Programs to provide a large-scale flu shot clinic held in the Greek Heritage Park on 10/28/2020.

CARES Act Funding – Student Financial Aid Distribution
- $15.4M was allocated to the University of Arizona for student emergency relief through the CARES Act. Funds may only be provided to eligible student for expenses related to the disruption of campus operations due to COVID-19.
- To date, a total of $9.8M in direct grants has been disbursed to 12,782 eligible undergraduate, graduate, and professional students who experienced disruption and were displaced from campus housing, lost funding for meal plans, had graduation plans delayed, had to unexpectedly travel long distances, and/or live in rural areas of Arizona.
- Through the Student Emergency Fund application process, $2.1M has been distributed to 3,189 students.
- More information: https://financialaid.arizona.edu/resources/covid19-info/cares-act
Tribal Relations

- The Tohono O’odham Nation announced it will contribute $1 million each to the University of Arizona and Arizona State University to support our world-renowned medical researchers’ efforts to combat COVID-19. The funding will come from the Nation’s 12% gaming revenue grants that are required under its compact to share with local community programs. Both universities will use the funds to mitigate the impact of COVID-19, including new testing methods and tools to enable the effective and equitable deployment of emerging technologies.

- On 11/12/2020, the University of Arizona will permanently install the flags of the 22 sovereign Tribal Nations of Arizona in the University Book Store. This tribal flag installation honors the tribal lands on which the University resides and is a symbolic representation of the important partnerships the University has with each Tribal Nation. Information to view the dedication ceremony virtually will be forthcoming to the campus community.

Research

- On 10/20/2020, NASA’s University of Arizona-led OSIRIS-REx mission successfully touched down on the asteroid Bennu in order to collect dust and pebbles from the surface and return them to Earth in 2023. This incredible accomplishment is a testament to the University’s excellence in research and space exploration. Congratulations to Dr. Dante Lauretta, OSIRIS-REx Principal Investigator, and the rest of the OSIRIS-REx team on this historic accomplishment.

- Dr. Elisabeth Krause, Assistant Professor of Astronomy, was awarded one of only 20 Packard Fellows in 2020. Dr. Krause runs the Arizona Cosmology Lab exploring fundamental questions about the physics of our universe. This is RII and Steward Observatory’s second Fellowship in two years. Congratulations to Dr. Krause.

Development/Fundraising

- Point-in-time fundraising data from the UA Foundation shows very strong development efforts for FY21:
  - FY21 as of October 25, 2020: $61,716,449
  - FY20 as of October 25, 2019: $55,797,016
  - FY 19 as of October 25, 2018: $62,193,333 (This was the best year ever for fundraising at the University of Arizona and FY21 is trending similarly)
REPORT TO FACULTY SENATE

FROM: The Faculty Officers http://facultygovernance.arizona.edu/

DATE: November 2, 2020

ACCOMPLISHMENTS

- Chair Summers and Vice Chair Hingle met with members of the Shared Governance Review Committee in their respective constituent groups (staff, senior leadership, students, & faculty) to discuss how the Committee would approach their charge (assess and address the health of shared governance at UArizona) and work together to establish a shared understanding of the principles of shared governance and how they are manifested in governance structures, practices, and the culture of UArizona. This Committee will complete the revision process to the Shared Governance Memorandum of Understanding. The first meeting is scheduled for November 2020.

- The Committee of Eleven issued a survey requesting feedback on leadership and communication during the week of October 23. Analyses are pending and the Committee plans on issuing a comprehensive report by the end of the month.

- The Senate Ad Hoc Committee on Career Track Faculty was formed and met for the first time on October 26. Vice Chair Hingle and Secretary Brewer attended. A set of draft proposals from a Steering Committee empaneled by the Provost and Chaired by Secretary Brewer to clean up faculty data and improve and clarify titling for career track faculty was handed off to the committee for further vetting. Any policy changes recommended by the committee will come to Senate prior to approval and implementation. Senators are encouraged to bring their ideas or issues related to Career Track faculty to the chair of the committee, Senator Bill Neumann.

- Chair Summers and Secretary Brewer met with new heads at an event led by Heads Up Executive Director Rob Miller to discuss shared governance and the University of Arizona.

- Chair Summers will be going on sabbatical during the spring 2021 semester. As per the Faculty Constitution, Vice Chair Hingle and Secretary Brewer will take over the majority of her duties.

- In response to Senator requests for more opportunities for discussion and debate between meetings, the Faculty Officers/Faculty Center Staff continue to offer the following options:
  - A Faculty Discourse Forum wherein topics can be introduced, discussed, and debated by the general faculty. Relevant to Senate, there is a “Lounge” feature within the site for Senators only to communicate with one another between monthly meetings.
  - Weekly “Senate Office Hours” every Tuesday, 4-4:50pm hosted by the Faculty Officers https://arizona.zoom.us/j/94767916308; no agenda, open discussion; hosted by Jessica Summers, Michael Brewer, and/or Melanie Hingle.

GOALS

SHORT-TERM

- Complete the work of the Senate Ad Hoc Committee on the MOU for Shared Governance, toward developing a document that can be endorsed by Senate and signed by Administration.
• Bring potential changes in UHAP to annual reviews and post-tenure review being developed by Vice Provost Andrea Romero, Ron Hammer, Colin Blakely, and Michael Brewer, to Senate for discussion.

LONG-TERM
• To ensure a continued successful, safe, and healthy return to campus life for all members of the UA community.
• To broaden participation in shared governance to ensure that the University lives up to its values and supports its mission as we move ahead.
• To work with you to do all that we, as a community, can do to save lives, support our most vulnerable community members, and increase faculty participation in all decision-making that affects our lives and the long-term health and well-being of all of us.

To Our Senate Colleagues: We remain grateful to you for your hard work, your input, your ideas and your continued engagement in shared governance. We continue to work to support the work of the University and to ensure the prominence of the Faculty voice.
REPORT TO FACULTY SENATE

FROM: Senior Vice President for Academic Affairs and Provost Liesl Folks  
https://provost.arizona.edu

DATE: 2 Nov 2020

ACCOMPLISHMENTS and GOALS:

- Pandemic Academic Coordination Work Group formed in early October, tasked with making recommendations for pandemic mitigations related to the academic and instructional mission of the University as we manage forward through the coronavirus era. See membership at https://provost.arizona.edu/content/pac.

- Campus Announcements:
  - Memo sent to students on 10/8 announcing expanded Stage 2 In-Person instruction, starting 10/26
  - Memo sent to campus on 10/14 regarding removal of Spring Break 2021.
  - Memo sent to academic unit leaders on 10/26 regarding planning for Spring 2021 Instruction.

- Bi-Weekly Live Chat session topics with faculty in the past month:
  - October 8th – Managing Forward
  - October 22nd – College Operations, Model of Engagement and Future Plans at the Honors College.
  - November 5th – *Upcoming* - Faculty Demographics and Hiring (https://provost.arizona.edu/content/provost-forum)

- Update on leadership searches:
  - Finalist interviews with the College of Science Dean candidates to begin in early November.

- Working with Business Affairs staff, summarized thoughts and inputs provided by academic units and campus leaders on Guiding Principles for any possible changes to RCM – outcomes to be reviewed with SPBAC at next meeting.
General Faculty Financial Advisory Committee (GFFAC)

Monthly Report for Faculty Senate

Activities

- As announced by President Robbins on October 29, the furlough plans have been revised to end on February 21, 2021 (January 12, 2021 for employees paid on the nine-month academic calendar).
  - In connection with the furlough decision, GFFAC met with President Robbins, Provost Folks, CFO Rulney, and Chief of Staff Dudas on October 8.
  - The approximately 40% reduction in the furlough reflects the similarly sized reduction in net tuition revenue losses relative to projections.
  - GFFAC communicated to CFO Rulney that the revision was acceptable to the committee given the circumstances.

Future Plans

- Disseminate an update to the campus community on financial and furlough-related issues in the coming days.
- Determine the scope of any ongoing role(s) of GFFAC in faculty governance.
REPORT TO FACULTY SENATE

FROM: Graduate Council

DATE: November 2, 2020

ACCOMPLISHMENTS:

The Graduate Council met on October 16 with reports conveying generally good news on graduate student enrollment and actions by the Graduate College to assist graduate students affected by the pandemic. Several efforts are underway to provide evidence-based mentorship training to research mentors across campus. RII has organized a meeting of institutional T32 fellowship programs to enhance infrastructure required for such programs, including additional training resources.

A proposed revision to the Graduate Certificate Credit Unit policy was discussed and approved to permit all units required for a graduate certificate to be applied to a subsequent MS or PhD program, subject to approval from the graduate program and the Graduate College.

In Faculty Senate on 10/5/2020, a question was raised about the Graduate Faculty title (UHAP 3.1.04). The process for revising a University policy such as UHAP was followed (https://policy.arizona.edu/process-creating-and-revising-university-policy). “Academic policies that relate to courses, instruction, curriculum, graduation requirements, minors, majors, certificates, degrees, transfer credits, general education, and academic progress must go through the shared governance approval process.” By contrast, University policies are sponsored, drafted and reviewed by the Senior Leadership Team (SLT) before stakeholder comments are invited for a minimum 30-day period. The draft was revised based on feedback and revisions and their rationale were reviewed by OGC, endorsed by the SLT, then reviewed and approved by the President. The revised section and renumbering were added to UHAP on 06/01/2020.

Graduate Council has 33 members from all UArizona colleges including the Deans of the Graduate College. Thirty-one members attended the October meeting, which is typical attendance.

GOALS:

Ongoing review of new program proposals and Graduate College policies.
REPORT TO FACULTY SENATE

FROM: GCSAC

DATE: November 2, 2020

ACCOMPLISHMENTS:

The committee has met with Vice Provost Wilson, Provost Folks, and topical specialist Dr Regina Deil-Amen.

We have not had a response from President Robbins about an interview. We have not been able to get contact information on UAGC President Pastorek for an interview request.

We have not received any of the 30 or so documents requested from UA SLT.

We have begun to draft a report to the Senate

GOALS:

Present a report to the Senate on November 23, 2020
REPORT TO FACULTY SENATE

FROM: Jennifer Lawrence, APAC  http://apac.arizona.edu/

DATE: November 2, 2020

ACCOMPLISHMENTS:

The APAC Executive Committee met on 10/20/2020. Discussion included staff concerns about the health insurance offerings for 2021 and moving forward with discussions re staff role in shared governance.

GOALS:

1) Hold a vote in November of APAC representatives on the proposed transition from APAC to UArizona Staff Council.

2) The UArizona Recognition Committee, a subcommittee of CSC and APAC, will meet in November to layout the nomination criteria and timeline for the 2021 University of Arizona Staff Awards for Excellence. These awards, financially supported by the President’s Cabinet, honor staff contributions to the University of Arizona mission. The spring ceremony will likely be virtual. The call for nominations will open later in November and close in January.
REPORT TO FACULTY SENATE

FROM: Research Policy Committee

DATE: October 22, 2020

ACCOMPLISHMENTS:

10/22 – continued discussion of Shared Governance document related to Cores
In reviewing RII’s comment it was concluded that RII has a different understanding/goal related to Shared Governance.
We sent email to RII asking them to share with us their policy on governance, etc.
We’ll meet with them November 12 to discuss

GOALS:

We plan to announce our progress at Faculty Senate
Share both our policy statement along with RII’s statement
Request a Faculty Senate vote in January, 2021
REPORT TO FACULTY SENATE

FROM: Academic Personnel Policy Committee

DATE: November 2, 2020

ACCOMPLISHMENTS:

At the APPC meeting on October 15, Vice Provost for Faculty Affairs Andrea Romero presented a summary of proposed revisions to UHAP on the Annual Performance Review process as developed by an APR Workgroup representing faculty, heads, Senate leadership and the Office of the Provost. The revision is intended to provide a less complicated annual assessment process that is compliant with ABOR annual review policy while still providing meaningful feedback on performance and professional growth by peers and administrators. Peer review would be based on unit criteria and would be shared with the faculty member. The streamlined annual review would add a proposed post-tenure review every three years that provides a more in-depth check-in (similar to the current annual review process) with formative feedback and allows faculty to work on longer-term goals. Discussion of the proposed changes followed, with notes recorded by APPC Co-Chair Hammer to be returned for discussion to the APR Workgroup composed of Drs. Romero, Brewer, Hammer and Blakely.

GOALS:

Continue review of ongoing policy proposals.
REPORT TO FACULTY SENATE

FROM: Student Affairs Policy Committee

DATE: November 2, 2020

ACCOMPLISHMENTS:

- Continued support of Student Regents in Basic Needs Initiative. Number of stakeholders is steadily increasing to include those with expertise in all areas pertaining to Basic Needs at both the local and at the ABOR level.
- Through member and senator Cheryl Cuillier, the committee discussed potential repercussions of outsourcing the bookstore (presentation by Senator Cuillier scheduled for 11/2 Meeting)
- Data dive into the results of recent student surveys to assess the most pressing student issues

GOALS:

- Continue to comb through data from various surveys (Wildcat Check-In, Cat Pulse, and others) and link to Provost’s office for coordination on Spring Campus Climate survey
- Investigate the situation with the online teaching of lab courses and required supplies for those courses due to concerns of increased student financial burden, accessibility and safety
Faculty Senate Meeting – Managing Forward

Christopher M. Kopach, Assistant Vice President
November 2, 2020
KEEPING THE CAMPUS SAFE AND HEALTHY

Members of the Facilities Management’s Isolation Cleaning Team at the Arizona State Museum.

From Left to Right: Custodians Lilliana González, Kyle Graves (temp), and Custodial Project Manager, José Solis
What Has FM Done Over the Last 7 Months?

- Ramped up cleaning and disinfecting beginning in January as is custom due to the cold/flu season
  - Using Oxivir which kills the COVID-19 virus
- Following CDC guidelines to ensure the health and safety of our employees and the campus community
- Trained members of our Custodial Staff on strict isolation, including PPE and proper cleaning techniques
- Handling PPE purchasing and storage for several units on campus
- Our Small Engine Shop has been converted to a disinfecting station, filling and replacing thousands of bottles of disinfectant to share across campus
- 78 Facilities Management employees assisted the Residence Life Department by cleaning out the Arizona Sonora and Honors College Dorms and moving approximately 600 students from across campus to either the Honors College or Coronado Dorms.
- Facilities Management also assisted with transporting about 1,000 students' personal items from 22 dorms on campus to the 34th St. Warehouse for safe storage.

- Reviewing the possibility of hands-free items on campus:
  - Faucets
  - Paper towel dispensers
  - Soap dispensers
  - Door opening devices
- Other items under review:
  - Hand sanitizing stations at entrances to buildings
  - Reviewing classrooms to ensure social distancing practices remain in place for the Fall Semester
  - Plastic shields
Items Completed to Date:

- 1,898 Sneeze Guards Installed
- Signage Completed in 100 Buildings
- 1,530 Wall Mounted Hand Sanitizers Installed
- 2,350 Touch-Free Paper Towel Dispensers Installed
- 1,310 Toilet Seat Covers Installed
Incident Command System (ICS) and Advisory Committees

Faculty Senate Presentation | November 2, 2020
<table>
<thead>
<tr>
<th>President</th>
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<tr>
<td>Incident Command System (ICS)</td>
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<tr>
<td>Pandemic Academic Committee (PAC)</td>
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</tbody>
</table>
Public Health Advisory COVID Team (PHACT)
Dr. Kacey Ernst, Co-chair
Dr. Joe Gerald, Co-chair

Role

Advises the President, ICS, CRT, and PAC on best public health practices, including advisement on testing allocation, and responses driven by public health metrics.

Members

- Dr. Paloma Beamer
- Dr. Theresa Cullen
- Dr. Kate Ellingson
- Amy Glicken
- Dr. Bruce Helming
- Steve Holland
- Dr. James Knepler
- Dr. Bonnie LaFleur
- Dr. Kristen Pogreba-Brown
- Dr. Lori Schultz
- Dr. Jamilah Shubeilat
- Dr. Jeff Silvertooth
- Cynthia Thomas
- Dr. Sarah Weiland
Pandemic Academic Committee (PAC)
Tina Deemer, Co-chair
Robert Stephan, Co-chair

Role

Reviews and develops proposals regarding academic matters with COVID-19 implications, which are then reviewed by ICS and approved by the President.

Members

- Diane Austin
- Nina Bates
- Roxie Catts
- Emily Dykstra
- Emily Earl
- Lisa Elfring
- Jeremy Elliot-Engel
- Greg Heileman
- Chad Herzog
- Robyn Huff-Eibl
- Dawn Hunziker
- Bruce Overland (ICS)
- Margaret Pitts
- Lori Schultz
- Tara Singleton
- Jose Teran
- Alex Underwood
- Kasey Urquidez
- Kendal Washington
- White
COVID-19 Response Team (CRT)
Celina Ramirez, Chair

Role
Reviews and develops proposals regarding non-academic matters with COVID-19 implications, which are then reviewed by ICS and approved by the President. Reviews and makes recommendations regarding requests for exceptions to the UA's limits on gatherings, which are approved by ICS.

Members
- Nina Bates
- Alex Blandeburgo
- Kacey Ernst
- Amy Glicken
- Chad Herzog
- Steve Holland
- Jane Hunter
- Chante Martin
- Kristen Pogreba-Brown
- Alex Robie
- David Salafsky
- Lori Schultz
- Brian Seastone
- Debby Shively
- Ilya Smith
- Alex Underwood
- Derek van der Merwe
- Kendal Washington White
- Danielle Oxnam (Admin Support)
- Chris Kopach (ICS Commander)
- Mona Arora (ICS Policy)
- Holly Jensen (ICS PIO)
- Julie Katsel (ICS Community Liaison)
- Stacey Lemos (ICS Finance)
- Sarah Meadows (ICS Legal)
- Sabrina Vazquez (ICS Policy)
Incident Command System (ICS)
Chris Kopach, Commander

Role

Reviews and makes recommendations to the President regarding plans and proposals with COVID-19 implications from an operational, logistical, safety, and budgetary standpoint.

Members

- Dr. Richard Carmona, Senior Advisor
- Bruce Grissom, Planning
- Bruce Overland, Logistics
- Luis Rocha, Operations
- Mona Arora, Policy
- Renee Hernandez, Logistical Support
- Holly Jensen, Public Information Officer
- Julie Katsel, Community Liaison
- Stacey Lemos, Finance
- Lane Spalla, CIRT Liaison
- Sabrina Vazquez, Policy
- Herb Wagner, Safety
- Kendal Washington White, Student Liaison
Positive Test Results 8/4 through 10/28

Test All Test Smart and Campus Health Antigen and PCR Tests, August 4, 2020 through October 28, 2020

Date is the return date of the test result. In general, rapid antigen tests are available on the same day, whereas PCR results are available within 48-72 hours. The counts presented reflect the number of positive test results, not the number of individuals. An individual may be tested more than once or participate in both antigen and PCR tests. In that case, all of their tests and test results will be counted.
Faculty, Library, Bookstore Collaborations Vital to Student Success

Cheryl Cuillier, UA Libraries
Debby Shively & Cindy Hawk, UA BookStores
In your academic career, has the cost of required textbooks caused you to:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Action</th>
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<tbody>
<tr>
<td>64.2%</td>
<td>Not purchase the required textbook</td>
</tr>
<tr>
<td>42.8%</td>
<td>Take fewer courses</td>
</tr>
<tr>
<td>40.5%</td>
<td>Not register for a specific course</td>
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<tr>
<td>35.6%</td>
<td>Earn a poor grade</td>
</tr>
<tr>
<td>22.9%</td>
<td>Drop a course</td>
</tr>
<tr>
<td>18.1%</td>
<td>Withdraw from a course</td>
</tr>
<tr>
<td>17.2%</td>
<td>Fail a course</td>
</tr>
</tbody>
</table>

Source: 2018 survey by Florida Virtual Campus
How UArizona students save $$$ on course materials

- Open educational resources
- Library-licensed materials
- Fair use of articles/chapters
- Inclusive access
- Rentals
- Used books
- Price matching
Free-to-use ebooks

• Library partnership with UA BookStores since 2012
• Each semester, BookStores share list of thousands of faculty textbook adoptions with library
• Library searches for unlimited-user ebooks
• Ebooks added to D2L Library Tools for courses
ebook Result

Yay! The library has just the ebook you're looking for:

MEASUREMENT IN NURSING+HEALTH RESEARCH

Multiple people can use this ebook at once.
Estimated Student Savings Resulting from UA BookStores/Libraries Partnership:
Over $32 million since FY13

The UA BookStores account for the majority of these savings, through inclusive access, rentals, used books, price matching, and student scholarships.
Average Cost of Course Materials Per Academic Year
UA Bookstores vs National Association of College Stores Average

*UAB figures derived from analysis of over 31,300 student bursar purchases. 73% of course materials purchases were by students on financial aid.

*The NACS Average included 44,000 responses. The margin of error is <1.0 at the 95% confidence level.
Z-Degrees & Z-Majors

Free access to 38 ebooks across 5 classes
“If the UA BookStores are outsourced, not only will students lose access to affordable course materials, they will lose opportunities for experiential learning.”

— Kimberly Marchesseault, Associate Director of Eller College’s Business Communication Program
Eight weeks into the fall 2020 semester, some students at Dickinson State University still do not have their class books.

"It’s just one thing after another with our bookstore right now, and our students are getting quite frustrated that every experience they seem to have is not a positive one," said James.

DSU’s bookstore is operated by Follett Higher Education Group, which took over operations last year. Previously, the bookstore was run by the university itself.
Advantages of having a campus-owned bookstore

• Lower costs for students
• Profits get invested back in campus, not in shareholders’ pockets
  ○ Last year, UA BookStores contributed $6 million to UArizona community through scholarships, student club funding, and more
• Experiential learning opportunities for students
• Community outreach & literacy initiatives
Actually pay rent on time

Survive

Eat Food!!!

Buy groceries

Live again & get sleep

Not work until 3 a.m. before school

#thestruggle
Questions?

Debby Shively, Associate Vice President, Auxiliary Services
dshively@arizona.edu
520-621-7151

Cindy Hawk, Assistant Director
chawk@arizona.edu
520-621-2428

Cheryl Cuillier, Open Education Librarian
ccuillie@arizona.edu
520-310-9874
Possible Constitution Change: Remove Emeritus Faculty from the General Faculty or narrow the criteria for their inclusion.

Emeritus faculty currently make up about 20% (nearly 800 members) of our General Faculty. This is significantly more than any one college, yet they participate in elections at a rate as much as 30-40 times less than our other faculty types (about .5%). They are also no longer employees of the UA (in most cases). We do, however, have a small number of emeriti who are still very active and some who continue in elected positions. Should we exclude them from membership in the General Faculty, significantly narrow the criteria for inclusion (perhaps to the first few years post-retirement), or leave things as is?

<table>
<thead>
<tr>
<th>Answer</th>
<th>%</th>
<th>Count</th>
</tr>
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<tbody>
<tr>
<td>I support removing emeritus faculty from the General Faculty</td>
<td>25.58%</td>
<td>11</td>
</tr>
<tr>
<td>I support some compromise to allow some level of participation</td>
<td>53.49%</td>
<td>23</td>
</tr>
<tr>
<td>I support keeping them all as full members (i.e., the status quo)</td>
<td>16.28%</td>
<td>7</td>
</tr>
<tr>
<td>Other (please explain)</td>
<td>0.00%</td>
<td>0</td>
</tr>
<tr>
<td>I Abstain</td>
<td>4.65%</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>43</td>
</tr>
</tbody>
</table>
I support some compromise to allow some level of participation:

Previously, emeritus faculty had voting privileges in the first five years of Emeritus status, which could be extended for additional five-year periods at the request of the individual faculty member. An option would be to require emeritus faculty to make a request annually to ensure active participation.

If they continue to request participation, they should be allowed to participate

Possibly a limited term-- 3-5 year duration after retirement

non-voting, non-office-holding

I support keeping them all as full members (i.e., the status quo):

Emeritus faculty is supposed to be a category of faculty who wish to continue direct involvement with the University and are retired from years of service at UA. If faculty do not wish to continue their involvement, they should be removed from the Emeritus list.
FINANCING THE MISSION:
COVID-19 Economic Impact

October 13, 2020
# Estimated Impacts Resulting from COVID-19 Crisis

## University of Arizona

### Estimated Impacts Resulting from COVID-19 Crisis*

*Version Date - 10/9/20*

<table>
<thead>
<tr>
<th>Description</th>
<th>Actuals (3 Mos)</th>
<th>Projected COVID Impacts (12 Mos)</th>
<th>Total (15 Mos)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Tuition &amp; Fee Revenue (Net)</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-State Students</td>
<td>-$6,600,000</td>
<td>-$6,600,000</td>
<td></td>
</tr>
<tr>
<td>Out of State - Domestic Students</td>
<td>-$24,900,000</td>
<td>-$24,900,000</td>
<td></td>
</tr>
<tr>
<td>Out of State - International Students</td>
<td>-$21,600,000</td>
<td>-$21,600,000</td>
<td></td>
</tr>
<tr>
<td>Arizona Online</td>
<td>$20,000,000</td>
<td>$20,000,000</td>
<td></td>
</tr>
<tr>
<td>All Other Tuition &amp; Fees</td>
<td>-$7,894,000</td>
<td>-$3,600,000</td>
<td>-$11,494,000</td>
</tr>
<tr>
<td>Investment Income</td>
<td>-$17,165,000</td>
<td>-$17,493,000</td>
<td>-$34,658,000</td>
</tr>
<tr>
<td>Philanthropy</td>
<td>-$8,383,000</td>
<td>-$8,383,000</td>
<td></td>
</tr>
<tr>
<td>Auxiliary Revenues: Housing, Student Union, Bookstores, Parking, Campus Health &amp; Campus Recreation</td>
<td>-$15,223,000</td>
<td>-$68,727,000</td>
<td>-$83,950,000</td>
</tr>
<tr>
<td>Intercollegiate Athletics</td>
<td>-$48,900,000</td>
<td>-$48,900,000</td>
<td></td>
</tr>
<tr>
<td>Facilities &amp; Administrative Cost Recovery</td>
<td>$0</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>Departmental Sales &amp; Service and Conferences</td>
<td>-$5,800,000</td>
<td>-$5,800,000</td>
<td></td>
</tr>
<tr>
<td><strong>Estimated Revenue Impact</strong></td>
<td>-$40,282,000</td>
<td>-$186,003,000</td>
<td>-$226,285,000</td>
</tr>
<tr>
<td><strong>Expenses</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased costs for online support for students, faculty &amp; staff</td>
<td>-$1,497,000</td>
<td>-$20,000,000</td>
<td>-$21,497,000</td>
</tr>
<tr>
<td>COVID Protection Measures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Estimated Expenses Impact</strong></td>
<td>-$1,497,000</td>
<td>-$20,000,000</td>
<td>-$21,497,000</td>
</tr>
<tr>
<td><strong>Total Projected COVID-19 Financial Impact</strong></td>
<td>-$41,779,000</td>
<td>-$206,003,000</td>
<td>-$247,782,000</td>
</tr>
</tbody>
</table>
## Financial Sustainability Taskforce

### Workgroups (With Stakeholder Input)

- **Core Team:** Lisa Rulney, Barry Brummund, David Elmer, Jim Florian, Sangita Pawar, Garth Perry, Helena Rodrigues, Nicole Salazar, Kasey Urquidez

- **Executive Team:** Robert Robbins, Lisa Rulney, Liesl Folks, Elizabeth Cantwell, Michael Dake, Jon Dudas, Laura Todd Johnson, Steve Moore, JP Roczniak

---

- **Capital Projects, Debt, & Investments**
  - Jim Florian
  - Laura Bakkensen
  - Peter Dourlein
  - Paulo Goes
  - Brooks Jeffery
  - Steve Kelly
  - Rob Miller
  - Bob Smith

- **Operational Efficiencies**
  - Nicole Salazar
  - Nina Bates
  - Brian Berrellez
  - Tom Bourgeois
  - Sabrina Helm
  - Steve Moore
  - Maliaca Oxnam
  - Sangita Pawar
  - Stephanie Rosenberg
  - Debby Shively
  - Simon White

- **New Opportunities**
  - Sangita Pawar
  - Parker Antin
  - Michael Brewer
  - Javier Duran
  - Stan Park
  - Nancy Pollock-Ellwand
  - Stan Reynolds
  - Lori Schultz
  - Carol Stewart
  - Jason Wertheim

- **Students**
  - Kasey Urquidez
  - Ravneet Chadha
  - A-P Durand
  - Jim Florian
  - Greg Heileman
  - Melanie Hingle
  - Marc Miller
  - Garth Perry
  - Cindy Rankin
  - Pam Ray
  - Andrea Romero
  - Shilpita Sen
  - Tara Singleton
  - Kelly South
  - Katie Van Renterghem

- **Strategic Plan Investments**
  - Garth Perry
  - Maribel Alvarez
  - Melissa Colchado
  - Sonia Colina
  - Jane Hunter
  - Diana Liverman
  - John O’Neil
  - Andy Schulz
  - Marilyn Taylor

- **Intercollegiate Athletics**
  - Garth Perry
  - Mario Calderon
  - Marv Slepian
  - Krystal Swindlehurst
  - Ricardo Valerdi
  - Derek Van Der Merwe
  - Bryce Wolma

- **Operational Efficiencies**
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Learn more at financialtaskforce.arizona.edu
# University of Arizona

## Estimated Impacts Resulting from COVID-19 Crisis*

*Version Date - 10/9/20*

<table>
<thead>
<tr>
<th>Description (3 Mos)</th>
<th>FY20 Actuals</th>
<th>FY21 Projected</th>
<th>Total (15 Mos)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Planning - delay Old Chem renovation, ARB, GCRB (3 months), Postponed several renovation projects</td>
<td>$7,000,000</td>
<td>$14,700,000</td>
<td>$21,700,000</td>
</tr>
<tr>
<td>December Debt Payment Restructure</td>
<td>$17,750,000</td>
<td>$17,750,000</td>
<td>$35,500,000</td>
</tr>
<tr>
<td>Postpone Annual Merit Increase Program</td>
<td>$19,900,000</td>
<td>$19,900,000</td>
<td>$39,800,000</td>
</tr>
<tr>
<td>Hiring Pause</td>
<td>$1,793,300</td>
<td>$6,660,800</td>
<td>$8,454,100</td>
</tr>
<tr>
<td>Furlough and Furlough-Based Salary Program</td>
<td>$200,000</td>
<td>$68,349,500</td>
<td>$68,549,500</td>
</tr>
<tr>
<td>Strategic Plan Review - Halt new FY20 funding</td>
<td>$19,000,000</td>
<td>$38,600,000</td>
<td>$57,600,000</td>
</tr>
<tr>
<td>CARES Act Funding</td>
<td></td>
<td>$17,798,912</td>
<td>$17,798,912</td>
</tr>
</tbody>
</table>

**Estimated Approved Mitigation Strategies Impact**

<table>
<thead>
<tr>
<th>Actuals</th>
<th>Projected COVID Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>$27,993,300</td>
<td>$183,759,212</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$211,752,512</strong></td>
</tr>
</tbody>
</table>

**Variance**

- Actuals: -$13,785,700
- Projected COVID Impacts: -$22,243,788
- Total: -$36,029,488