

This template is to be used only by programs that have received specific written approval from the Provost's office to proceed with internal proposal development and review. The proposal template should be completed in full and submitted to the University Provost's Office [mailto: curriculumplanning@asu.edu]. It must undergo all internal university review and approval steps including those at the unit, college and university levels. A program **may not** be implemented until the Provost's Office notifies the academic unit that the program may be offered.

College/School/Institute: School of Sustainability
Department/Division/School: Sustainability
Proposing faculty group (if applicable):
Are two or more academic units collaborating on this program? Yes, this is a joint degree program

If "Yes", list all the additional college(s)/school(s)/institute(s) that will be involved in the development and resources for the degree program by offering courses, faculty or facilities. Please note: This question does not refer to official joint degree programs. Official joint degree programs are ones in which the degree is jointly conferred by two colleges. If the program is jointly conferred, please complete the Proposal to Establish a New Joint Undergraduate Degree Program.

Morrison School of Agribusiness; School of Nutrition and Health Promotion

Degree type: BS-Bachelor of Science
If other; provide degree type title and proposed abbreviation:
Name of degree program (major): Sustainable Food Systems
Are any concentrations to be established under this degree program? No, concentrations will not be established.
Is a program fee required? No, a program fee is not required.
What is the first catalog year available for students to select on the undergraduate application for this this program? 2019-20

Delivery method and campus or location options: select all locations that apply

- Downtown Phoenix
 Polytechnic
 Tempe
 Thunderbird
 West
 Other: _____
 Both on-campus and ASU Online* - (check applicable campus(es) from options listed above)
 ASU Online only (all courses online and managed by ASU Online)

Note: Once students elect a campus or online option, students will not be able to move between the on-campus and the ASU Online options. Approval from the Office of the University Provost and Philip Regier (Executive Vice Provost and Dean) is required to offer programs through ASU Online. Please contact Ed Plus then complete the ASU Online Offering form in [Curriculum ChangeMaker](#) to begin this request.

Proposal Contact

Name: Caroline J. Harrison **Title:** Curricular and Academic Programs
Phone number: 480-965-8645 **Email:** caroline.harrison@asu.edu

DEAN APPROVAL(S)

This proposal has been approved by all necessary unit and College/School levels of review. I recommend implementation of the proposed organizational change.

College/School/Division Dean name: Christopher Boone

Signature: 
 Date: February 11, 2019

College/School/Division Dean name: 1B3950E268FE4F9...

(if more than one college involved)

Signature: _____ **Date:** ____ / ____ /20

Note: An electronic signature, an email from the dean or dean's designee, or a PDF of the signed signature page is acceptable.

1. Purpose and Nature of Program

Provide a brief program description. Include the distinctive features of the program that make it unique.

The BS in Sustainable Food Systems will equip the next generation of students to understand the current food systems landscape from an interdisciplinary perspective and then participate in shaping it. Students from diverse backgrounds with an interest in any area related to food systems including business, social and natural sciences, and policy maximize the program's scope and reach. As part of the educational mission of the Swette Center for Sustainable Food Systems, this degree will be a collaboration of the School of Sustainability, College of Health Solutions and Morrison School of Agribusiness. The program will feature a core curriculum that will give all students a basic understanding of policy, science, social justice, economic development, health and wellness, governance, sustainability and agribusiness and introduces them to the complexity of food systems. Students will then select four electives in one of seven focus areas that best aligns with their interests and goals: Procurement, Ecosystem Science, Business & Innovation, Educational Leadership, Global Engagement, Policy & Governance, or Public Health & Nutrition. Each focus area includes a large selection of recommended electives to give students flexibility in meeting their needs and schedules. The major map also includes several open upper-division electives that will allow students to add additional courses either in their focus area or in another area of interest. It will be designed to take advantage of the strengths of the Tempe, Polytechnic, and Downtown Phoenix campuses by including focus areas that can be specific to each campus. It will appeal to students from both rural and urban areas with demonstrated interest in food systems and a commitment to sustainable agriculture by including a wide range of electives allowing them to focus on what would best meet their needs and interests--from developing or enhancing their local food or agribusiness systems to finding solutions to urban food deserts to international development efforts.

2. Student Learning Outcomes and Assessment Methods

Assessment Plan

Attach a PDF copy of the assessment plan printed from the University Office of Evaluation and Educational Effectiveness assessment portal demonstrating UOEEO's approval of your assessment plan for this program. Visit the assessment portal at <https://uoeee.asu.edu/assessment-portal> or contact uoeee@asu.edu with any questions.

3. Academic Curriculum and Requirements

A. Major Map

Attach a copy of the "proposed" major map for this degree program. If this program will be delivered online as well as in-person, attach a copy of both the major map and the online major map. Instructions on how to create a "proposed major map" in [BAMM](#) can be found in the [Build a Major Map Training Guide](#).

B. Summary of Credit Hours Required for this Program

Total credit hours must be 120 and include first year composition, general studies, core/required courses, program specific electives, and any additional requirements (e.g., concentration credits).

Requirements	Credit Hours
First Year Composition	6
ASU 101 (or equivalent)	1
General Studies	15
Core/required courses	48
Program specific electives	18
Additional requirements Language + Capstone	15
Other; please explain University Electives	17
Total	120

C. Core/Required Courses**i. Total required and/or core course credit hours**

48

ii. List the prefix, number, name and credit hours for each required/core course for this program

CHM 101 Introductory Chemistry, SQ, (4) or CHM 113 General Chemistry I, SQ (4) or CHM 114 General Chemistry for Engineers, SQ (4)
NTR 241 Human Nutrition (3)
SFS 215 Fundamentals of US Agriculture (3)
SFS 216 Subsectors of US Food and Agriculture (3)
SOS 101 Introduction to Applied Mathematics for the Life and Social Sciences, MA (3)
SOS 110 Sustainable World, SB (3)
SOS 111 Sustainable Cities, (HU or SB) & G (3)
SOS 182 Water Planet, SQ (4)
SOS 211 Calculus and Probability for the Life and Social Sciences, MA (3)
SOS 212 Systems, Dynamics and Sustainability (3)
SOS 220 Systems Thinking (3)
SOS 231 Careers in Sustainability (1)
SOS 310 Equity, Justice and Sustainability (3)
SOS 311 Future Thinking and Strategies (3)
SOS 326 Sustainable Ecosystems (3)
SOS 327 Sustainable Food and Farms (3)

D. Program Specific Electives**i. Total required program elective credit hours**

18

ii. List the prefix, number, name and credit hours for any program specific electives for this program

Choose 2 of the following Skills Electives (6 credits):

AME 130 Prototyping Dreams, L (3)
CIS 105 Computer Applications and Information Technology, CS (3)
CIS 300 Web Design and Development (3)
COM 225 Public Speaking, L (3)
COM 459 Theory and Methods of Social Media Networks (3)
ECN 211 Macroeconomic Principles, SB (3)
ECN 212 Microeconomic Principles, SB (3)
ENG 216 Persuasive Writing on Public Issues, L (3)
FIS 305 Ways of Knowing, L (3)
GIS 205 Geographic Information Science I, CS (3)
GIS 211 Geographic Information Science II, CS (4) (prereq GIS 205)
MGT 430 Negotiations (3)
NLM 300 Fund Raising and Resource Development (3)
OGL 240 Introduction to Product Management (3)
SOS 232 Professional Skills in Sustainability Practice (3)
SST 220 Introduction to Social Transformation (3)

Focus Area Electives: Students will select one focus area and complete 12 credits of courses from that area. Students may also talk with their academic advisor to craft a unique focus area:

Procurement

- AGB 250 Economics of Resource Allocation: Food and Agriculture (3)
- AGB 425 Food Supply Networks (3)
- AGB 435 Commodity Futures and Options Markets (3)
- AGB 445 Food Retailing (3)
- AGB 456 Food Product Innovation and Development (3)
- AGB 481 Strategic Pricing in Food Markets (3)
- NTR 142 Applied Food Principles (3) (includes lab)
- NTR 343 Food Service Purchasing (3)
- NTR 344 Nutrition Management & Leadership, L (3)
- NTR 445 Management of Food Service Systems (3)
- NTR 455 Retail Food Service Operations (3)
- OGI 326 Project Procurement Management (3)
- SOS 328 Sustainability and Enterprise (3)
- SOS 485/SCM 485 Business and Sustainability II (3)
- SOS 498 Topic: Interventions on Sustainable Consumption on Campus, L (3)
- SOS 498 Topic: Sustainable Food Economy, L (3)
- TDM 481 Sustainable Food Management in Tourism (3)

Ecosystem Science

- ABS 207 Applied Plant Taxonomy (3) (prereq BIO 182)
- ABS 260 Fundamentals of Sustainable Horticulture, SG (4)
- ABS 270 Sustainable Biological Systems (3)
- ABS 314 Applied Plant Physiology (3) (prereq BIO 182)
- ABS 318 Unseen Life on Earth (3)
- ABS 368 Plant Propagation (3)
- ABS 370 Ecology (3) (prereq BIO 182)
- ABS 380 Restoration and Wildlife Plants (3) (prereq ABS 207)
- ABS 394 Topic: Food and Human Health (3)
- ABS 452 Commercial Applications of Fermentation (3) (prereq BIO 181 or 281)
- ABS 460 Organic Gardening (2)
- ABS 464 Desert Horticulture (3) (prereq ABS 260)
- BIO 100 The Living World, SQ (4) or BIO 181 General Biology I, SQ (4)
- BIO 108 Concepts in Plant Biology, SQ (4)
- BIO 130 Introduction to Environmental Science, SQ (4)

- BIO 182 General Biology II, SG (4) (prereq BIO 181)
- BIO 304 Plants and Civilization, L (3) (prereq BIO 181 or 188 and 182)
- BIO 320 Fundamentals of Ecology (3) (prereq BIO 181 and 182)
- BIO 322 Conservation of Biodiversity (3) (prereq BIO 181 and 182)
- BIO 386 General Entomology (4) (prereq BIO 181 and 182)
- BIO 418 Soil Ecology (3)
- BIO 434 People and Nature: Ecosystem Services (3) (prereq MAT 117 or SOS 101)
- CEE 181 Technological, Social and Sustainable Systems, HU (3)
- PLB 302 Plants & Civilization, L (3) (prereq BIO 181 or 188 and BIO 182, 187)
- SES 106 Habitable Worlds, SQ (4)
- SOS 314 Basic Energy Science (3)
- SOS 429/BIO 429 Human Impacts on Ecosystem Functioning (3) (prereq BIO 320 or SOS 326)
- SOS 494 GHG Emissions Inventory (3)

Business & Innovation (at least two must be from AGB, BUS, CIS, ECN, ENT, MGT, MKT or SCM)

- AGB 100 Introduction to Agribusiness (3)
- AGB 250 Economics of Resource Allocation: Food and Agriculture (3)
- AGB 302 International Management and Agribusiness, G (3)
- AGB 321 Agribusiness Marketing (3)
- AGB 333 Agribusiness Finance (3)
- AGB 366 Agribusiness Production Technologies (3)
- AGB 414 Food and Agribusiness Policy Issues, L (3)
- AGB 420 Food Advertising and Promotion (3)
- AGB 425 Food Supply Networks (3)
- AGB 435 Commodity Futures and Options Markets (3)
- AGB 445 Food Retailing (3)
- AGB 452 Global Food and Agricultural Trade (3)
- AGB 456 Food Product Innovation and Development (3)
- AGB 481 Strategic Pricing in Food Markets (3)
- BUS 424 Sales and Negotiations (3) (prereq MKT 300)
- BUS 434 Business Risk Management (3) (prereq FIN 300 or 303)
- ENT 305 Principles of Entrepreneurship (3)
- ENT 340 Creativity and Innovation, L or HU (3) (prereq ENT 290 or 305 or MGT 290)
- ENT 360 Entrepreneurship and Value Creation (3)
- FIS 308 Politics, Markets and Innovation, SB (3)
- MKT 300 Marketing and Business Performance (3) (prereq ECN 211, 212, 213 or 214)
- MKT 390 Essentials of Marketing (3)
- MKT 391 Essentials of Selling (3)
- MKT 395 Essentials of Advertising and Marketing Communication (3)

MKT 435 Entrepreneurial Marketing (3) (prereq MKT 300)
NTR 343 Food Service Purchasing (3)
NTR 455 Retail Food Service Operations (3)
SOS 328 Sustainability and Enterprise (3)
SOS/SCM 385 Business & Sustainability I (3)
SOS/SCM 485 Business and Sustainability II (3)
STS 329 Technology in Developing Countries, SB & G (3)
TDM 481 Sustainable Food Management in Tourism (3)
TEM 455 Global Impact Entrepreneurship (3)

Educational Leadership

CDE 232 Human Development, SB (3)
CDE 337 Early Childhood Intervention (3)
ECD 211 The Developing Child: Theory into Practice, Prenatal-Grade 3, SB (3)
ECD 220 Introduction to Nutrition, Health and Safety (2)
EDP 310 Topic: Children and Poverty (SB) (1)
EDP 310 Topic: Developing as a Leader (SB) (1)
EDP 310 Educational Psychology for Non-Teachers (SB) (3)
EDP 310 Topic: Motivation (SB) (1)
EDP 310 Topic: Multicultural Issues (SB) (1)
EXW 102 Principles and Foundations of Health Education and Health Promotion (3)
NTR 343 Food Service Purchasing (3)
NTR 344 Nutrition Management and Leadership, L (3)
NTR 445 Management of Food Service Systems (3)
OGL 200 Introduction to Organizational Leadership, SB (3)
OGL 220 Behavioral Dynamics in Organizations, SB (3)
OGL 260 Resource Allocation in Organizations (3)
OGL 355 Leading Organizational Innovation and Change (3)
SCN 209 Introduction to Environmental Education Project (1)
SCN 300 Foundations of Environmental Education (3)
SCN 301 Ecology and Natural History of the Sonoran Desert, SG (4)
SCN 302 Environmental Education, L & G (3)
TEL 111 Exploration of Education, SB (3)
TEL 215 Introduction to Child and Adolescent Development, SB (3)
TEL 405 History of Education and Policy Reform in the United States (3)
USL 210 Service Learning: Intro to Diverse Community Issues, L & C (3)
USL 402 Service Learning: Education & Youth, C (3)

Global Engagement

- AGB 302 International Management and Agribusiness, G (3)
AGB 452 Global Food and Agricultural Trade (3)
AIS 180 Introduction to American Indian Studies, C (3)
AIS 320 American Indian Philosophies and World Views, HU & C (3)
AIS 480 Actualizing Decolonization, HU & C & G (3)
ASB 305 Poverty and Global Health, (L or SB) & G (3)
GCU 121 World Geography, SB & G (4)
GCU 432 Geography of China, SB & G (3)
JHR 305 Theory and Practice of Social Justice and Human Rights, SB & G (3)
JHR 484 Topic: Human Trafficking (3)
POS 160 Global Politics, SB & G (3)
POS 240 Introduction to Southeast Asia, (HU or SB) & G (3)
POS 260 Current Issues in International Politics, (L or SB) & G (3)
POS 300 Contemporary Global Controversies, SB & G (3)
POS 348 Do You Want to Build a Nation?, L (3)
POS 367 World Politics and Global Inequalities, G (3)
POS 454 Mexico, SB & G (3)
POS 480 Global Justice, G (3)
SGS 203 Contemporary Global Trends, SB & G (3)
SOS 322 International Development and Sustainability (3)
SOS 456 Human Rights and Sustainability, (L or SB) & G (3)
STS 329 Technology in Developing Countries, SB & G (3)
STS 332 Global Issues in Science and Technology, SB (3)
TEM 450 Design for the Developing World (3)

Policy & Governance

- AGB 414 Food and Agribusiness Policy Issues, L (3)
AGB 452 Global Food and Agricultural Trade (3)
JUS 214 The Pursuit of Justice in the 21st Century, SB (3)
PAF 201 Economics and Public Policy, SB (3)
PAF 340 Contemporary Policy Challenges (3)
PAF 420 Public Leadership (3)
POS 216 State and Local Government, SB (3)
POS 230 Current Issues in National Politics, L or SB (3)
POS 310 American National Government, SB (3)
POS 313 The Congress, SB (3)

- POS 325 Public Policy Development, SB (3)
- POS 333 Interest Groups, SB (3)
- POS 417 Arizona Politics, SB (3)
- POS 471 Constitutional Law I, SB (3)
- POS 472 Constitutional Law II, SB (3)
- POS 480 Global Justice, G (3)
- SOS 321 Policy and Governance in Sustainable Systems (3)
- SOS 322 International Development and Sustainability (3)
- SOS 456 Human Rights and Sustainability, (L or SB) & G (3)

Public Health & Nutrition

- AGB 414 Food and Agribusiness Policy Issues, L (3)
- AGB 420 Food Advertising and Promotion (3)
- AGB 425 Food Supply Networks (3)
- ASB 100 Introduction to Global Health, SB & G (3)
- ASB 301/SSH 301/HST 301 Global History of Health, SB, G & H (3)
- ASB 305 Poverty and Global Health, (L or SB) & G (3)
- ASB 443/SSH 403 Cross-Cultural Studies in Global Health, (L or SB) & G (3-6) (prereq SSH 100 or ASB 100)
- BIO 100 The Living World, SQ (4) or BIO 181 General Biology, SQ (4)
- BIO 182 General Biology II, SG (4) (prereq BIO 181)
- HCI 311 Health Innovation: Foundational Concepts (3)
- HCR 230 Culture and Health, C & G (3)
- NTR 142 Applied Food Principles (3) (includes lab)
- NTR 320 History of Human Nutrition (3)
- NTR 343 Food Service Purchasing (3)
- NTR 344 Nutrition Management and Leadership, L (3)
- NTR 348 Cultural Aspects of Food, SB & C & G (3)
- NTR 351 Nutrition Communication, L (3)
- NTR 353 Perspectives on the Western Diet: Food, Health and Sustainability (3)
- NTR 355 Eating for Lifelong Health, SB (3)
- NTR 445 Management of Food Service Systems (3) (prereq NTR 142 + 343)
- NTR 448 Community Nutrition, L (3)
- NTR 450 Nutrition in the Life Cycle, SB (3)
- NTR 455 Retail Food Service Operations (3)
- PBH 422 Health Disparities and Access to Health (3)
- POP 100 Introduction to Population Health (3)
- SOS 370 Ethics of Eating, L or SB (3)

E. Additional Program Requirements, if any:

List and describe any capstone experiences, milestone, and/or additional requirements.

Second Language (8)

SFS 498 Pro-Seminar (3)

SFS 484 Internship (4)

F. Concentrations

i. Are any concentrations to be established under this degree program? **No, concentrations will not be established.**

ii. If yes, are concentrations required? (Select One)

iii. List courses & additional requirements for the proposed concentration(s)

Concentration Name	Total credit hours	Core/Required Courses for Concentration (Prefix, # & Title)	Total Core credit hours	Program Specific Electives (include course name and prefix)	Total Elective credit hours	Additional Requirements (i.e. milestones, capstones)

4. New Course Development

A. Will a new course prefix (es) be required for this degree program? Yes

If yes, list prefix name(s) (i.e. ENG- English): SFS-Sustainable Food Systems

Note: A request for a New Prefix form must be completed for each new prefix required and submitted with this proposal: [New prefix request form](#).

B. New Courses Required for Proposed Degree Program

List all new courses required for this program, including course prefix, number and course description.

SFS 215 Fundamentals of US Food Agriculture

This course provides a panoramic introduction to American food and agriculture, organized in three parts: history and structure; the natural resources nexus; and labor.

SFS 216 Subsectors of US Food and Agriculture

This course reviews basic facts of the most important subsectors of agricultural production, organized by food group (e.g., dairy, grains, fruits and vegetables, etc.) and considers current policy controversies challenging those subsectors.

Note: New course requests must be submitted electronically via [Curriculum ChangeMaker](#) and undergo all internal university review and approval steps including those at the unit, college, and university levels.

5. Program Need

Explain why the university needs to offer this program (include target audience and market).

Graduates with a BS in Sustainable Food Systems will be prepared to assess, analyze, and create policies and processes related to food security, sustainable agriculture, climate change, food equity and economic development. Market analytics provided by Emsi indicate job growth within this sector will increase at an annual rate of 7.3%, and the U. S. Department of Labor projects an 11% increase in openings in the environmental specialist sector, with Arizona seeing an increase of 15%. Every year, there are an estimated 10,000 job openings due to growth and net replacement. Interviews conducted by the Swette Center for Sustainable Food Systems director with leaders from local, state, and federal government, as well as private sector businesses, and philanthropic and private equity investors have cited a critical need for graduates who understand food systems from a multidisciplinary lens. Sustainable food systems graduates will offer employers and graduate programs an integrated approach to developing solutions to sustainability challenges. Graduates of the program will understand the complexity of systems, have engaged in a range of knowledge and experience from different disciplinary perspectives, and understand the importance of planning for the future and how to engage stakeholders in that process.

6. Impact on Other Programs

List other academic units that might be impacted by the proposed program and describe the potential impact (e.g., how the implementation of this program might affect student headcount/enrollment, student recruitment, faculty participation, course content, etc. in other programs). Attach letters of collaboration/support from impacted programs.

The wide range of electives in the seven focus areas and skills courses come from across many disciplines on several campuses. The selections were made in conjunction with the departments to not only ensure their applicability to the degree and focus area but to provide a flexible selection to students with courses as they are currently offered. Few courses outside of the school of sustainability will be required to be offered in order for a student to complete their degree. See attached letters of support.

7. Projected Enrollment

How many new students do you anticipate enrolling in this program each year for the next five years?

5-YEAR PROJECTED ANNUAL ENROLLMENT					
	1 st Year	2 nd Year (Yr 1 continuing + new entering)	3 rd Year (Yr 1 & 2 continuing + new entering)	4 th Year (Yrs 1, 2, 3 continuing + new entering)	5 th Year (Yrs 1, 2, 3, 4 continuing + new entering)
Number of Students Majoring (Headcount)	50	100	200	300	300

8. Accreditation or Licensing Requirements

If applicable, provide the names of the external agencies for accreditation, professional licensing, etc. that guide your curriculum for this program, if any. Describe any requirements for accreditation or licensing.

None

9. Faculty & Staff

A. Current Faculty

List the name, rank, highest degree obtained, and area of specialization or expertise of all current faculty who will teach in the program, and estimate their level of involvement.

Name	Rank	Degree	Involvement
Chuck Redman	Professor	PhD	Teaching 1 or 2 core courses
Dan Childers	Professor	PhD	Teaching 1 or 2 core courses
Hallie Eakin	Professor	PhD	Teaching 1 or 2 core courses
Marco Janssen	Professor	PhD	Teaching 1 or 2 core courses

Arnim Wiek	Associate Professor	PhD	Teaching 1 or 2 core courses
Michael Schoon	Associate Professor	PhD	Teaching 1 or 2 core courses
Ariane Cease	Assistant Professor	PhD	Teaching 1 or 2 core courses
Chuan Liao	Assistant Professor	PhD	Teaching 1 or 2 core courses
Daniel Fischer	Assistant Professor	PhD	Teaching 1 or 2 core courses
Datu Agusdinata	Assistant Professor	PhD	Teaching 1 or 2 core courses
Sonja Klinsky	Assistant Professor	PhD	Teaching 1 or 2 core courses
Ted Pavlic	Assistant Professor	PhD	Teaching 1 or 2 core courses
Tyler DesRoches	Assistant Professor	PhD	Teaching 1 or 2 core courses
Kathleen Merrigan	Professor of Practice	PhD	Teaching 1 or 2 core courses, Lead faculty for Program
Jose Lobo	Associate Research Professor	PhD	Teaching 1 or 2 core courses
Milan Shrestha	Lecturer PhD		Teaching 1 or 2 core courses
Bjoern Hagen	Assistant Research Professor and Lecturer	PhD	Teaching 1 or 2 core courses
Shirley-Ann Behravesh	Lecturer PhD		Teaching 1 or 2 core courses

B. New Faculty

Describe the new faculty hiring needed during the next three years to sustain the program. List the anticipated hiring schedule and financial sources for supporting the addition of these faculty members.

No new hiring is anticipated

C. Administration of the Program

Explain how the program will be administered for the purposes of admissions, advising, course offerings, etc. Discuss the available staff support.

The recruiting/admissions/advising functions and protocol will be the same as our current BS and BA in Sustainability degrees. An existing advisor will be assigned to support this program. The support for those existing programs will make additional administration minimal.

10. Resources (necessary to launch and sustain the program)

A. Required Resources

Describe any new resources required for this program’s success, such as new support staff, new facilities, new library resources, new technology resources, etc.

No new resources anticipated in the first years.

B. Resource Acquisition

Explain how the resources to support this program will be obtained.

APPENDIX
OPERATIONAL INFORMATION FOR UNDERGRADUATE PROGRAMS
 (This information is used to populate the [Degree Search](#)/catalog website.)

1. Program Name (Major): Bachelor of Science Sustainable Food Systems

2. Marketing Description (*Optional. 50 words maximum. The marketing description should not repeat content found in the program description*)

The food and agriculture sector is changing in exciting ways, creating demand for professionals who understand the complex interconnections between food, natural resources, policy, economic opportunity and social equity. Become an innovative problem-solver ready to assume a wide range of food-related careers in this degree program.

3. Program Description (*150 words maximum*)

The BS program in sustainable food systems trains students to understand food-related challenges using a food systems lens which encompasses the many aspects of food and agriculture within an integrated social and environmental context. This lens empowers students to grapple with real-life complexities and become effective agents of change. Coursework covers a wide range of topics from nutrition science to agricultural production, economics, social justice and more.

Housed in the School of Sustainability, students are engaged in an active community collectively working to achieve the 2030 United Nations Sustainable Development Goals. Beyond the core subject matter and skills courses, degree requirements include an internship, a chosen focus area and a culminating research project, all of which provide students in-depth knowledge of a food-related subfield and ample preparation for exciting careers.

4. Contact and Support Information

Building code and room number: (Search ASU map)	WGHL 108
Program office telephone number: (<i>i.e. 480/965-2100</i>)	480/727-6963
Program Email Address:	schoolofsustainability@asu.edu
Program Website Address:	https://schoolofsustainability.asu.edu

5. Delivery/Campus Information Options: On-campus only (ground courses and/or iCourses)

Note: Once students elect a campus or online option, students will not be able to move between the on-campus and the ASU Online options. Approval from the Office of the University Provost and [Philip Regier](#) (Executive Vice Provost and Dean) is required to offer programs through ASU Online. Please contact Ed Plus then complete the ASU Online Offering form in [Curriculum ChangeMaker](#) to begin this request.

6. Campus/Locations indicate all locations where this program will be offered.

Downtown Phoenix Polytechnic Tempe Thunderbird West Other: _____

7. Additional Program Description Information

- A. Additional program fee required for this program? No
- B. Does this program have a second language requirement? Yes

8. Career Opportunities

Provide a brief description of career opportunities available for this degree program. (150 words maximum)

Graduates will have gained a broad understanding of sustainable food systems and are trained to pursue multiple career pathways related to food. Students are encouraged to select electives that build upon core sustainable food systems coursework and ready them for career opportunities such as managing natural resources for food production; public policy, governance, and grassroots organizing; food literacy; sustainable food procurement; agricultural development, poverty alleviation and emerging markets; improved public health through food; or food entrepreneurship and innovation, marketing and agribusiness.

9. Additional Freshman Admission Requirements

If applicable, list any freshman admission requirements that are higher than and/or in addition to the university minimum undergraduate admission requirements.

The School of Sustainability has higher admission requirements than the general university requirements. Applicants must select a second choice for their major on the application. Students who are not admitted to the School of Sustainability and who did not select a second major or are not admissible to the second major choice will be admitted to the exploratory social and behavioral sciences program within the College of Integrative Sciences and Arts.

Freshman applicants must meet the following standards:

- minimum cumulative high school GPA of 3.00 (scale is 4.00 = "A") in competency courses AND
- rank in the top 25 percent of their high school graduating class OR
- an SAT combined score of
 - 1040 or higher (if taken prior to March 2016) or
 - 1120 or higher (if taken in or after March 2016) OR
- an ACT combined score of 22 or higher.

10. Additional Transfer Admission Requirements

If applicable, list any admission requirements for transfer students that are higher than and/or in addition to the university minimum undergraduate transfer admission requirements.

Transfer students (those with 12 or more transfer credit hours after high school graduation) are required to have a cumulative transfer GPA of 3.00 or higher. The School of Sustainability will review transfer applications that fall below this GPA level on an individual basis.

Students with more than 45 transfer credit hours who are not admissible to the School of Sustainability or the second major choice will be contacted to select an appropriate major.

11. Change of Major Requirements

Standard change of major text is as follows: A current ASU student has no additional requirements for changing majors. Students should refer to <https://students.asu.edu/changingmajors> for information about how to change a major to this program.

If applicable, list any additional requirements for students who may change their major into this program.

ASU students who would like to change their major to sustainability are required to have a cumulative ASU GPA of 3.00 or higher (based on at least 12 credit hours of ASU coursework). Students should see <https://students.asu.edu/changingmajors> for information about how to change a major to this program.

12. Global Experience

The following text is standard global experience text. If applicable, edit or add to the text to tailor it to your program.

With over 250 programs in more than 65 countries (ranging from one week to one year), study abroad is possible for all ASU students wishing to gain global skills and knowledge in preparation for a 21st century career. Students earn ASU credit for completed courses, while staying on track for graduation, and may apply financial aid and scholarships toward program costs. <https://mystudyabroad.asu.edu/>

13. Keywords

List all keywords used to search for this program (limit 10). Keywords should be specific to the proposed program.

Sustainability, , Agribusiness, Nutrition, Policy, Agriculture, Environment, Innovation, Ecosystems, Procurement, Supply Chain

14. Advising Committee Code

List the existing advising committee code to be associated with this degree.

UGSUA, UGSUP, UGSUD (proposed)

Note: If a new advising committee needs to be created, please complete the following form:
[Proposal to create an undergraduate advising committee](#)

15. First Required Math Course

List the first math course required in the major map.

SOS 101 Intro to Applied Math for the Life & Social Sciences

16. WUE Eligible

Has a request been submitted to the Provost by the Dean to consider this degree program as eligible for WUE?

No

Note: No action will be taken during the implementation process with regards to WUE until approval is received from the Provost.

17. Math Intensity

a. List the highest math course required on the major map. (This will not appear on Degree Search.)

SOS 212 Systems, Dynamics, & Sustainability

b. What is the math intensity as indicated by the highest math required on the major map? Math intensity categorization can be found here: <https://catalog.asu.edu/mathintensity>

Moderate

18. ONET Codes

Identify ONET/SOC codes that should be displayed on Degree Search. ONET/SOC codes can be found at: <http://www.onetonline.org/crosswalk/SOC/>. Alternate titles displayed on Degree Search may vary and can be found at: <https://catalog.asu.edu/alternate-career-titles>.

13-1199.05	.....	.....
19-2041.00	.....	.....
11-9013.02	.....	.....
19-1012.00	.....	.....
11-9199.01	.....	.....

19. Area(s) of Interest

A. Select **one (1)** primary area of interest from the list below that applies to this program.

- | | |
|--|---|
| <input type="checkbox"/> Architecture & Construction | <input type="checkbox"/> Health & Wellness |
| <input type="checkbox"/> Arts | <input type="checkbox"/> Humanities |
| <input type="checkbox"/> Business | <input type="checkbox"/> Interdisciplinary Studies |
| <input type="checkbox"/> Communications & Media | <input type="checkbox"/> Law, Justice, & Public Service |
| <input type="checkbox"/> Computing & Mathematics | <input type="checkbox"/> STEM |
| <input type="checkbox"/> Education & Teaching | <input type="checkbox"/> Science |
| <input type="checkbox"/> Engineering & Technology | <input type="checkbox"/> Social and Behavioral Sciences |
| <input type="checkbox"/> Entrepreneurship | <input checked="" type="checkbox"/> Sustainability |
| <input type="checkbox"/> Exploratory | |

B. Select **one (1)** secondary area of interest from the list below that applies to this program.






- | | |
|--|---|
| <input type="checkbox"/> Architecture & Construction | <input type="checkbox"/> Health & Wellness |
| <input type="checkbox"/> Arts | <input type="checkbox"/> Humanities |
| <input type="checkbox"/> Business | <input type="checkbox"/> Interdisciplinary Studies |
| <input type="checkbox"/> Communications & Media | <input type="checkbox"/> Law, Justice, & Public Service |
| <input type="checkbox"/> Computing & Mathematics | <input type="checkbox"/> STEM |






- | | |
|---|--|
| <input type="checkbox"/> Education & Teaching | <input type="checkbox"/> Science |
| <input type="checkbox"/> Engineering & Technology | <input checked="" type="checkbox"/> Social and Behavioral Sciences |
| <input type="checkbox"/> Entrepreneurship | <input type="checkbox"/> Sustainability |
| <input type="checkbox"/> Exploratory | |



2019 - 2020 Major Map

Sustainable Food Systems, (Proposed)

School/College:
WAHANXJ

Term 1 0 - 14 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 SOS 101: Introduction to Applied Mathematics for the Life and Social Sciences (MA)	3	C	<ul style="list-style-type: none"> • An SAT, ACT, Accuplacer, IELTS or TOEFL score determines placement into first-year composition courses. • Mathematics Placement Assessment score determines placement in mathematics course. • SOS 191 or college-specific equivalent First-Year Seminar required of all freshman students. • SOS 201 required of all Sustainability transfer students. • ASU Language Placement: Only true beginners are eligible for 101-level courses. All other students are required to take a placement or proficiency exam, regardless of prior credit earned. CLEP and AP credit are also viable options for fulfilling the second language requirement.
 SOS 191: Introduction to ASU and SOS for Freshmen OR SOS 201: Introduction to ASU and Sustainability	1	C	
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	
SOS 111: Sustainable Cities ((HU or SB) & G)	3	C	
Second Language: Requirement satisfied through the following: * Completion of language course(s) at the 102 level.	4	C	
 Minimum 2.50 GPA ASU Cumulative.			
 Minimum 3.00 GPA in SOS.			
Term hours subtotal:	14		

Term 2 14 - 30 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	<ul style="list-style-type: none"> • ASU Language Placement: Only true beginners are eligible for 101-level courses. All other students are required to take a placement or proficiency exam, regardless of prior credit earned. CLEP and AP credit are also viable options for fulfilling the second language requirement. • Join a student club or professional organization.
SOS 110: Sustainable World (SB)	3	C	
SOS 211: Calculus and Probability for the Life and Social Sciences (MA)	3	C	
Second Language: Requirement satisfied through the following: * Completion of language course(s) at the 102 level.	4	C	
Social-Behavioral Sciences (SB) AND Cultural Diversity in the U.S. (C)	3		
 Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
 Complete SOS 110 AND SOS 111 course(s).			
 Minimum 2.50 GPA ASU Cumulative.			
 Minimum 3.00 GPA in SOS.			
Term hours subtotal:	16		

Term 3 30 - 46 Credit Hours Critical course signified by 	Hours	Minimum Grade	Notes
 SOS 220: Systems Thinking	3	C	<ul style="list-style-type: none"> • Create a first draft resume. • Start attending sustainability career-related workshops and lectures.
CHM 101: Introductory Chemistry (SQ) OR CHM 113: General Chemistry I (SQ) OR CHM 114: General Chemistry for Engineers (SQ)	4		
SFS 215: Fundamentals of US Food and Agriculture	3	C	
SOS 212: Systems, Dynamics and Sustainability	3	C	

Computer/Statistics/Quantitative Applications (CS) 3

❖ Complete First-Year Composition requirement.

❖ Minimum 2.50 GPA ASU Cumulative.

❖ Minimum 3.00 GPA in SOS.

Complete Mathematics (MA) requirement.

Term hours subtotal: 16

Term 4 46 - 60 Credit Hours Critical course signified by ❖	Hours	Minimum Grade	Notes
NTR 241: Human Nutrition	3	C	<ul style="list-style-type: none"> Students will select one focus area and complete 12 credits of courses from that area. Students may also talk with their academic advisor to craft a unique focus area.
SFS 216: Subsectors of US Food and Agriculture	3	C	
SOS 182: Water Planet (SQ)	4	C	
SOS 231: Careers in Sustainability	1	C	
Humanities, Arts and Design (HU) AND Historical Awareness (H)	3		
❖ Complete SFS 215 AND SFS 216 course(s).			
❖ Complete SOS 211 AND SOS 212 course(s).			
❖ Minimum 2.50 GPA ASU Cumulative.			
❖ Minimum 3.00 GPA in SOS.			
Term hours subtotal:	14		

Term 5 60 - 75 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes	
SOS 310: Equity, Justice and Sustainability	3	C	<ul style="list-style-type: none"> Students will select one focus area and complete 12 credits of courses from that area. Students may also talk with their academic advisor to craft a unique focus area. Meet with the School of Sustainability Career Advisor to review your resume. 	
SOS 311: Future Thinking and Strategies	3	C		
SOS 326: Sustainable Ecosystems	3	C		
SOS 327: Sustainable Food and Farms	3	C		
Skills Elective	3	C		
★ Minimum 2.50 GPA ASU Cumulative.				
★ Minimum 3.00 GPA in SOS.				
Term hours subtotal:	15			

Term 6 75 - 90 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes	
Upper Division Focus Area Course	3	C	<ul style="list-style-type: none"> Students will select one focus area and complete 12 credits of courses from that area. Students may also talk with their academic advisor to craft a unique focus area. Begin exploring internship opportunities and meet with the School of Sustainability Internship and Experiential Education Specialist to discuss your interests. 	
Focus Area Course	3	C		
Skills Elective	3	C		
Upper Division Humanities, Arts and Design (HU) OR Upper Division Social-Behavioral Sciences (SB)	3			
Literacy and Critical Inquiry (L)	3			
★ Complete Cultural Diversity in the U.S. (C) AND Global Awareness (G) AND Historical Awareness (H) course(s).				
★ Minimum 2.50 GPA ASU Cumulative.				
★ Minimum 3.00 GPA in SOS.				
Term hours subtotal:	15			

Term 7 90 - 105 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
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SFS 484: Internship	4	B-
Upper Division Focus Area Course	3	C
Complete 2 courses:	5	
Upper Division Elective		
Elective	3	

★ Minimum 2.50 GPA ASU Cumulative.

★ Minimum 3.00 GPA in SOS.

Term hours subtotal: 15

Term 8 105 - 120 Credit Hours Necessary course signified by ★	Hours	Minimum Grade	Notes
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SFS 498: Pro-Seminar	3	B-
Upper Division Focus Area Course	3	C
Complete 3 courses:	9	
Upper Division Elective		

★ Minimum 2.50 GPA ASU Cumulative.

★ Minimum 3.00 GPA in SOS.

Term hours subtotal: 15

- Students will select one focus area and complete 12 credits of courses from that area. Students may also talk with their academic advisor to craft a unique focus area.
- Meet with the School of Sustainability Career Advisor to discuss and refine your **career search process**.

- Students will select one focus area and complete 12 credits of courses from that area. Students may also talk with their academic advisor to craft a unique focus area.

- Students must select one of the following focus areas:
 - Procurement
 - Ecosystem Science
 - Business & Innovation
 - Educational Leadership
 - Global Engagement
 - Policy & Governance
 - Public Health & Nutrition
- Students must declare a focus area by the end of Term 4.

Hide Course List(s)/Track Group(s)

Skills Electives	Procurement	Ecosystem Science
AME 130: Prototyping Dreams (L)	AGB 250: Economics of Resource Allocation: Food and Agriculture	ABS 207: Applied Plant Taxonomy
CIS 105: Computer Applications and Information Technology (CS)	AGB 425: Food Supply Networks	ABS 260: Fundamentals of Sustainable Horticulture (SG)
CIS 300: Web Design and Development	AGB 435: Commodity Futures and Options Markets	ABS 270: Sustainable Biological Systems
COM 225: Public Speaking (L)	AGB 445: Food Retailing	ABS 314: Applied Plant Physiology
COM 459: Theory and Methods of Social Media Networks	AGB 456: Food Product Innovation and Development	ABS 318: Unseen Life on Earth
ECN 211: Macroeconomic Principles (SB)	AGB 481: Strategic Pricing in Food Markets	ABS 368: Plant Propagation
ECN 212: Microeconomic Principles (SB)	NTR 142: Applied Food Principles	ABS 370: Ecology
ENG 216: Persuasive Writing on Public Issues (L)	NTR 343: Food Service Purchasing	ABS 380: Restoration and Wildlife Plants
FIS 305: Ways of Knowing (L)	NTR 344: Nutrition Management and Leadership (L)	ABS 394: Food and Human Health
		ABS 452: Commercial Applications of Fermentation

GIS 205: Geographic Information Science I (CS)	NTR 445: Management of Food Service Systems	ABS 460: Organic Gardening
GIS 211: Geographic Information Science II (CS)	NTR 455: Retail Food Service Operations	ABS 464: Desert Horticulture
MGT 430: Negotiations	OGL 326: Project Procurement Management	BIO 100: The Living World (SQ) or BIO 181: General Biology I (SQ)
NLM 300: Fund Raising and Resource Development	SOS 328: Sustainability and Enterprise	BIO 108: Concepts in Plant Biology (SQ)
OGL 240: Introduction to Project Management	SOS 485: Business and Sustainability II or SCM 485: Business and Sustainability II	BIO 130: Introduction to Environmental Science (SQ)
SOS 232: Professional Skills in Sustainability Practice	SOS 498: Interventions on Sustainable Consumption on Campus (L)	BIO 182: General Biology II (SG)
SST 220: Introduction to Social Transformation	SOS 498: Sustainable Food Economy (L)	BIO 304: Plants and Civilization (L)
	TDM 481: Sustainable Food Management in Tourism	BIO 320: Fundamentals of Ecology
		BIO 322: Conservation of Biodiversity
		BIO 386: General Entomology
		BIO 418: Soil Ecology
		BIO 434: People and Nature: Ecosystem Services
		CEE 181: Technological, Social, and Sustainable Systems (HU)
		PLB 302: Plants and Civilization (L)
		SES 106: Habitable Worlds (SQ)
		SOS 314: Basic Energy Science
		SOS 429: Human Impacts on Ecosystem Functioning or BIO 429: Human Impacts on Ecosystem Functioning
		SOS 494: GHG Emissions Inventory
Business & Innovation (at least 2 courses must be from AGB, BUS, CIS, ECN, ENT, MGT, MKT or SCM)	Educational Leadership	Global Engagement
AGB 100: Introduction to Agribusiness	CDE 232: Human Development (SB)	AGB 302: International Management and Agribusiness (G)
AGB 250: Economics of Resource Allocation: Food and Agriculture	CDE 337: Early Childhood Intervention	AGB 452: Global Food and Agricultural Trade
AGB 302: International Management and Agribusiness (G)	ECD 211: The Developing Child: Theory into Practice, Prenatal-Grade 3 (SB)	AIS 180: Introduction to American Indian Studies (C)
AGB 321: Agribusiness Marketing	ECD 220: Introduction to Nutrition, Health and Safety	AIS 320: American Indian Philosophies and World Views (HU & C)
AGB 333: Agribusiness Finance	EDP 310: Children and Poverty (SB)	AIS 480: Actualizing Decolonization (HU & C & G)
AGB 366: Agribusiness Production Technologies	EDP 310: Developing as a Leader (SB)	ASB 305: Poverty and Global Health ((L or SB) & G)
AGB 414: Food and Agribusiness Policy Issues (L)	EDP 310: Educational Psychology for Non-Teachers (SB)	GCU 121: World Geography (SB & G)
AGB 420: Food Advertising and Promotion	EDP 310: Motivation (SB)	GCU 432: Geography of China (SB & G)
AGB 425: Food Supply Networks	EDP 310: Multicultural Issues (SB)	JHR 305: Theory and Practice of Social Justice and Human Rights (SB & G)
	EXW 102: Principles and Foundations of Health Education and Health Promotion	

AGB 435: Commodity Futures and Options Markets	NTR 343: Food Service Purchasing	JHR 484: Human Trafficking
AGB 445: Food Retailing	NTR 344: Nutrition Management and Leadership (L)	POS 160: Global Politics (SB & G)
AGB 452: Global Food and Agricultural Trade	NTR 445: Management of Food Service Systems	POS 240: Introduction to Southeast Asia ((HU or SB) & G)
AGB 456: Food Product Innovation and Development	OGL 200: Introduction to Organizational Leadership (SB)	POS 260: Current Issues in International Politics ((L or SB) & G)
AGB 481: Strategic Pricing in Food Markets	OGL 220: Behavioral Dynamics in Organizations (SB)	POS 300: Contemporary Global Controversies (SB & G)
BUS 424: Sales and Negotiations	OGL 260: Resource Allocation in Organizations	POS 348: Do You Want to Build a Nation? (L)
BUS 434: Business Risk Management	OGL 355: Leading Organizational Innovation and Change	POS 367: World Politics and Global Inequalities (G)
ENT 305: Principles of Entrepreneurship	SCN 209: Introduction to Environmental Education Project	POS 454: Mexico (SB & G)
ENT 340: Creativity and Innovation (L or HU)	SCN 300: Foundations of Environmental Education	POS 480: Global Justice (G)
ENT 360: Entrepreneurship and Value Creation	SCN 301: Ecology and Natural History of the Sonoran Desert (SG)	SGS 203: Contemporary Global Trends (SB & G)
FIS 308: Politics, Markets and Innovation (SB)	SCN 302: Environmental Education (L & G)	SOS 322: International Development and Sustainability
MKT 300: Marketing and Business Performance	TEL 111: Exploration of Education (SB)	SOS 456: Human Rights and Sustainability ((L or SB) & G)
MKT 390: Essentials of Marketing	TEL 215: Introduction to Child and Adolescent Development (SB)	STS 329: Technology in Developing Countries (SB & G)
MKT 391: Essentials of Selling	TEL 405: History of Education and Policy Reform in the United States	STS 332: Global Issues in Science and Technology (SB)
MKT 395: Essentials of Advertising and Marketing Communication	USL 210: Service Learning: Intro to Diverse Community Issues (L & C)	TEM 450: Design for the Developing World
MKT 435: Entrepreneurial Marketing	USL 402: Service Learning: Education & Youth (C)	
NTR 343: Food Service Purchasing		
NTR 455: Retail Food Service Operations		
SOS 328: Sustainability and Enterprise		
SOS 385: Business and Sustainability I or SCM 385: Business and Sustainability I		
SOS 485: Business and Sustainability II or SCM 485: Business and Sustainability II		
STS 329: Technology in Developing Countries (SB & G)		
TDM 481: Sustainable Food Management in Tourism		
TEM 455: Global Impact Entrepreneurship		
Policy & Governance	Public Health & Nutrition	
AGB 414: Food and Agribusiness Policy Issues (L)	AGB 414: Food and Agribusiness Policy Issues (L)	
AGB 452: Global Food and Agricultural Trade	AGB 420: Food Advertising and Promotion	
JUS 214: The Pursuit of Justice in the 21st Century (SB)	AGB 425: Food Supply Networks	

PAF 201: Economics and Public Policy (SB)	ASB 100: Introduction to Global Health (SB & G)
PAF 340: Contemporary Policy Challenges	ASB 301: Global History of Health (SB & G & H) or SSH 301: Global History of Health (SB & G & H) or HST 301: Global History of Health (SB & G & H)
PAF 420: Public Leadership	
POS 216: State and Local Government (SB)	ASB 305: Poverty and Global Health ((L or SB) & G)
POS 230: Current Issues in National Politics (L or SB)	ASB 443: Cross-Cultural Studies in Global Health ((L or SB) & G) or SSH 403: Cross-Cultural Studies in Global Health ((L or SB) & G)
POS 310: American National Government (SB)	
POS 313: The Congress (SB)	BIO 100: The Living World (SQ) or BIO 181: General Biology I (SQ)
POS 325: Public Policy Development (SB)	
POS 333: Interest Groups (SB)	BIO 182: General Biology II (SG)
POS 417: Arizona Politics (SB)	HCI 311: Health Innovation: Foundational Concepts
POS 471: Constitutional Law I (SB)	HCR 230: Culture and Health (C & G)
POS 472: Constitutional Law II (SB)	NTR 142: Applied Food Principles
POS 480: Global Justice (G)	NTR 320: History of Human Nutrition
SOS 321: Policy and Governance in Sustainable Systems	NTR 343: Food Service Purchasing
SOS 322: International Development and Sustainability	NTR 344: Nutrition Management and Leadership (L)
SOS 456: Human Rights and Sustainability ((L or SB) & G)	NTR 348: Cultural Aspects of Food (SB & C & G)
	NTR 351: Nutrition Communication (L)
	NTR 353: Perspectives on the Western Diet: Food, Health and Sustainability
	NTR 355: Eating for Lifelong Health (SB)
	NTR 445: Management of Food Service Systems
	NTR 448: Community Nutrition (L)
	NTR 450: Nutrition in the Life Cycle (SB)
	NTR 455: Retail Food Service Operations
	PBH 422: Health Disparities and Access to Health
	POP 100: Introduction to Population Health
	SOS 370: Ethics of Eating (L or SB)

Total Hours: 120

Upper Division Hours: 45 minimum

Major GPA: 2.00 minimum

Cumulative GPA: 2.00 minimum

General University Requirements Legend

General Studies Core Requirements:

- Literacy and Critical Inquiry (L)

BS in Sustainable Food Systems

- Outcome 1:** Graduates of the program will apply their knowledge of sustainable food systems by developing and implementing strategies within a real-world context through inquiry and analysis, problem solving, quantitative reasoning, teamwork and collaboration.
- General Education 1:** Inquiry and Analysis; Problem Solving; Quantitative Reasoning/Literacy; Teamwork and Collaboration;
- Concepts 1:** Food systems, sustainability, food systems policy, quantitative reasoning, communication.
- Competencies 1:** Students will demonstrate their skills in the sustainability education competencies of systems thinking, normative thinking, strategic thinking, futures thinking, collaboration.
- Measure 1.1:** In SOS 498 Capstone Workshop, the learning outcome will be assessed through a holistic analysis of the projects for the stakeholders/clients.
- Performance Criterion 1.1:** At least 75% of students will achieve "meets expectations" or "exceeds expectations" on the faculty developed rubric.
- Measure 1.2:** This outcome will be measured by the short paper assignments in SFS 215 Fundamentals of US Food and Agriculture.
- Performance Criterion 1.2:** At least 75% of students will achieve "intermediate" or "high performance" on the short paper assignment rubrics.
- Outcome 2:** Graduates of the program will demonstrate proficiency in critical, analytic and creative thinking by developing, communicating, and applying practical solutions to food sustainability challenges.
- General Education 2:** Creative Thinking; Ethical Reasoning; Global, Historical, Cultural Awareness; Language and Literacy; Written Communication;
- Concepts 2:** Communicating and persuasion of complex material, critical thinking, analytic thinking, creativity, pragmatism, problem resolution and food sustainability
- Competencies 2:** Students will demonstrate their skills in the sustainability education competencies of systems thinking, normative thinking, and strategic thinking in their application of practical solutions to food sustainability challenges..
- Measure 2.1:** A holistic assessment will be based on digital portfolios consisting of selected course assignments, reflections on sustainability education competencies, and creative communication.
- Performance Criterion 2.1:** At least 75% of student portfolios will be rated at "meets expectations" or "exceeds expectations" on the SOS developed rubric.
- Measure 2.2:** In SOS 310 Equity, Justice and Sustainability, students will be assessed against a faculty developed rubric that addresses the intersection of justice and sustainability that includes effective use of evidence, analysis and explanation, processes and strategies.
- Performance Criterion 2.2:** At least 75% of students will receive a B or better by satisfactorily completing the rubric requirements.
- Outcome 3:** Graduates of the program will be able to synthesize, think critically, and communicate about the complexities of food systems from policy to business, health care to sustainability, locally, regionally, nationally, and globally
- General Education 3:** Critical Thinking; Inquiry and Analysis; Verbal Communication; Written Communication;
- Concepts 3:** Critical thinking, analytic thinking, synthesis, complexity, sustainability, effective communication
- Competencies 3:** When the students analyze, synthesize and communicate the complexities of food systems, they will demonstrate their skills in the sustainability education competencies of systems thinking, normative thinking and strategic thinking.
- Measure 3.1:** In School of Sustainability 200 and 300 level courses introducing aspects of food systems, students will be assessed against faculty developed rubrics that address their understanding of the complexities and intersections of agribusiness, science, policy and governance, health, social justice and sustainability that includes effective use of evidence, analysis and synthesis.
- Performance Criterion 3.1:** At least 75% of students will achieve "meets expectations" or "exceeds expectations" on the faculty developed rubric.

Measure 3.2: A holistic assessment will be based on a presentation assignment in the students' capstone internship course.

Performance At least 75% of students will achieve "meets expectations" or "exceeds expectations" on the Criterion 3.2: faculty developed rubric.

January 5, 2019

To Whom It May Concern:

The Mary Lou Fulton Teachers College fully supports The School of Sustainability's planning of a BS in Sustainable Food Systems. We feel the Mary Lou Fulton Teachers College can support this program through current courses, and new courses in Educational Studies that are forthcoming.

Sincerely,



Carole G. Basile, Dean

February 4, 2019

Dean Christopher Boone
School of Sustainability
Arizona State University
P.O. Box 875502
Tempe, AZ 85287-5502

Dean Boone:

I am happy to support the new BS degree in Sustainable Food Systems. The program's core curriculum of policy, science, social justice, economic development, health and wellness, governance, sustainability and agribusiness – aligns well with our own desire to prepare graduates to work at all of these intersections.

We look forward to working with you to add art and design courses into the curriculum – especially around design thinking, design and sustainability, creative placemaking, and more. We are also interested in future pathways where are students can get a dual degree or a concentration or certificate in sustainable food systems.

The Herberger Institute looks forward to supporting and connecting with this new degree as it evolves.

Sincerely,



Steven J. Tepper
Dean and Director, Herberger Institute for Design and the Arts
Foundation Professor
Arizona State University

Subject: Re: Letter of support for the proposed BS in Sustainable Food Systems
Date: Sunday, February 3, 2019 at 4:30:27 PM Mountain Standard Time
From: Deborah Helitzer
To: Christopher Boone
CC: Caroline Harrison
Attachments: image001.png, image002.png, image003.jpg

Dear Chris – This email documents my support, as the Dean of CHS, for the SOS proposed BS in Sustainable Food Systems. I am aware that the degree plan includes opportunities to use CHS Nutrition courses. We expect most of the courses to be available in the future.

Best of luck on your proposal.

Warm regards
Deborah

DEBORAH L. HELITZER, Sc.D.

Dean and Professor

College of Health Solutions

Arizona State University

Email: deborah.helitzer@asu.edu

Phone: 602.496.1943

For information or appointments, please contact Malissa Todd (Malissa.Endsley@asu.edu)



From: Christopher Boone <Christopher.G.Boone@asu.edu>
Date: Sunday, February 3, 2019 at 4:17 PM
To: Deborah Helitzer <Deborah.Helitzer@asu.edu>
Cc: Caroline Harrison <Caroline.Harrison@asu.edu>
Subject: RE: Letter of support for the proposed BS in Sustainable Food Systems

Hi Deborah,

Yes, understood. An email expressing support for the program would be fine.

Thanks,
Chris

From: Deborah Helitzer <Deborah.Helitzer@asu.edu>
Sent: Friday, February 1, 2019 6:24 PM
To: Christopher Boone <Christopher.G.Boone@asu.edu>
Cc: Caroline Harrison <Caroline.Harrison@asu.edu>
Subject: Re: Letter of support for the proposed BS in Sustainable Food Systems

Hi Chris – as I mentioned I am happy to provide a letter of support but cannot guarantee that the classes you list will be available in a few years because of our intended restructuring of our nutrition programs.

If that is okay, I can provide a general letter of support. Do you have a template letter that you can provide?

Thanks
Deborah

DEBORAH L. HELITZER, SC.D.

Dean and Professor
College of Health Solutions
Arizona State University
Email: deborah.helitzer@asu.edu
Phone: 602.496.1943

For information or appointments, please contact Malissa Todd (Malissa.Endsley@asu.edu)



From: Christopher Boone <Christopher.G.Boone@asu.edu>
Date: Friday, February 1, 2019 at 1:12 PM
To: Deborah Helitzer <Deborah.Helitzer@asu.edu>
Cc: Caroline Harrison <Caroline.Harrison@asu.edu>
Subject: Letter of support for the proposed BS in Sustainable Food Systems

Dear Deborah,

I am writing to ask for a letter of support for the proposed BS in Sustainable Food Systems. My hope is that you could provide a supporting letter on or before next **Friday, February 8**. As you will see in the attached document, the proposed degree includes a large number of electives that draw on courses from 10 colleges. The purpose is to give students the opportunity to specialize in one of 7 domains: Procurement, Ecosystem Science, Business & Innovation, Educational Leadership, Global Engagement, Policy & Governance, and Public Health & Nutrition.

From CHS we have identified the following courses that align with multiple domains, especially Public Health & Nutrition, but we are certainly happy to modify, add, or subtract as you see fit:

EXW, HCR, NTR, PBH,

Courses and Focus Areas

EXW 220 Principles and Foundations of Health Education and Health Promotion	Education
HCR 230 Culture and Health (C, G)	Nutrition
NTR 142 Applied Food Principles (includes lab)	Nutrition
NTR 142 Applied Food Principles (includes lab)	
Procurement	
NTR 241	Science
NTR 320 History of Human Nutrition	Nutrition
NTR 343 Food System Purchasing	Business

NTR 343 Education	Food System Purchasing	
NTR 343 Food Service Purchasing		Nutrition
NTR 343 Procurement	Food System Purchasing	
NTR 344	Nutrition Management and Leadership (L)	Education
NTR 344 Nutrition Management & Leadership (L)		Nutrition
NTR 344 Procurement	Nutrition Management & Leadership (L)	
NTR 348 Cultural Aspects of Food (SB, C, G)		Nutrition
NTR 351 Nutrition Communication (L)		Nutrition
NTR 353 The Western Diet Nutrition		
NTR 355 Eating for Lifelong Health (SB)		Nutrition
NTR 445	Management of Food Service Systems	Education
NTR 445 Management of Food Service Systems (prereq NTR 142 + 343)		Nutrition
NTR 445 Procurement	Management of Food Service Systems (prereq NTR 142 + 343)	
NTR 448 Community Nutrition (L)		Nutrition
NTR 450 Nutrition in the Life Cycle (SB)		Nutrition
NTR 455	Retail Food Service Operations	Business
NTR 455 Retail Food Operations		Nutrition
NTR 455 Procurement	Retail Food Service Operations	
PBH 100 Intro to Public Health Nutrition		
PBH 422 Health Disparities and Access to Health		Nutrition

Thanks, and please let me know if you have any questions or concerns.

Chris

Christopher Boone

Dean and Professor



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Executive Assistant: Lorraine.Protocollo@asu.edu

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Caroline Harrison

From: Christopher Boone
Sent: Thursday, February 07, 2019 11:24 AM
To: Caroline Harrison
Subject: FW: Cross listing SFS and AGB

Christopher Boone

Dean and Professor



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From: "Amy Hillman (DEAN)" <AMY.HILLMAN@asu.edu>
Date: Thursday, February 7, 2019 at 11:23 AM
To: Christopher Boone <Christopher.G.Boone@asu.edu>, Kay Faris <KAY.FARIS@asu.edu>, Mark Manfredo <manfredo@asu.edu>
Subject: Re: Cross listing SFS and AGB

Hi Chris,

I fully support the creation of AGB 215 and 216 to be used as cross-listed courses with SFS 215 and 216 in the new degree.

Thank you,
Amy

Amy Hillman, PhD
Charles J. Robel Dean's Chair
Arizona State University
W. P. Carey School of Business
amy.hillman@asu.edu | Ph: 480.965.3402



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From: Christopher Boone <Christopher.G.Boone@asu.edu>
Date: Thursday, February 7, 2019 at 9:56 AM
To: Amy Hillman <AMY.HILLMAN@asu.edu>
Subject: Cross listing SFS and AGB

Hi Amy,

Sorry to bother you again, but we need a note from you supporting the creation of AGB 215 and 216 so that we can cross-list with SFS 215 and 216. If I can get your approval by tomorrow we will be able to get this on the 2/25 senate agenda for new course approval.

Thanks,
Chris

Christopher Boone

Dean and Professor



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Subject: FW: Letter of support for the proposed BS in Sustainable Food Systems
Date: Wednesday, February 6, 2019 at 5:45:45 PM Mountain Standard Time
From: Christopher Boone
To: Kathleen Merrigan, Caroline Harrison
Attachments: image001.jpg

Christopher Boone

Dean and Professor



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From: "Amy Hillman (DEAN)" <AMY.HILLMAN@asu.edu>
Date: Wednesday, February 6, 2019 at 5:44 PM
To: Christopher Boone <Christopher.G.Boone@asu.edu>
Subject: Re: Letter of support for the proposed BS in Sustainable Food Systems

Hi Chris,

Thank you, these modifications work for us and we approve and fully support with these revisions.

Amy

Amy J. Hillman, PhD
Charles J. Robel Dean's Chair
W. P. Carey School of Business
Arizona State University
amy.hillman@asu.edu
480.965.3402

On Feb 5, 2019, at 8:45 AM, Christopher Boone <Christopher.G.Boone@asu.edu> wrote:

Hi Amy,

I heard back from Kathleen and from our curriculum group. On the second item, we can certainly cross-list the SFS courses with AGB. Kathleen has consulted with Mark Manfredo to ensure that the SFS courses and their contents are not substitutes for agribusiness. SFS is a new prefix and are the two signature courses for the new degree program.

On the first point, we agree that it makes sense to require 2 of the 4 electives from WPC for the "Business and Innovation" focus area and we will make those changes. For the "Procurement" focus area, 8 of the 19 electives are already WPC/Morrison. Kathleen's point is that many of the students who choose this focus area will be engaged in school food procurement that will be more closely tied

to education practice and policy than business. Kathleen also noted that she wanted to include more courses from Supply Chain but the prereqs made most of the courses unreachable for the typical BS SFS student.

Hopefully this works for your team.

Chris

Christopher Boone

Dean and Professor

<image001.jpg>

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Executive Assistant: Lorraine.Protocollo@asu.edu
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From: "Amy Hillman (DEAN)" <AMY.HILLMAN@asu.edu>

Date: Monday, February 4, 2019 at 11:49 AM

To: Christopher Boone <Christopher.G.Boone@asu.edu>

Subject: Re: Letter of support for the proposed BS in Sustainable Food Systems

Hi Chris,

My team has some heartburn about this, but we're hoping with a few modifications, we could both be happy about this.

First, in two of the 7 domains, Procurement and Business & Innovation, we have a hard time with no required courses from W. P. Carey. Even though these are tracks, it's hard for me to concede "business" and have them take four courses in that track, none from WPC. Could we specify that students in these two tracks take at least two of the four from us?

Second, Morrison School faculty are concerned about the two courses Kathleen's developed:

SFS 215 Fundamentals of US Agriculture (3)

SFS 216 Subsectors of US Food (3)

Would you consider using an AGB prefix for these? As you know the money follows instructors. Or, I think I could get my team to stomach a cross list with AGB if this causes you pain.

What do you think?

Amy

Amy Hillman, PhD

Charles J. Robel Dean's Chair

Arizona State University

W. P. Carey School of Business

amy.hillman@asu.edu | Ph: 480.965.3402

<image002.png>

From: Christopher Boone <Christopher.G.Boone@asu.edu>

Date: Friday, February 1, 2019 at 1:02 PM

To: Amy Hillman <AMY.HILLMAN@asu.edu>

Cc: Caroline Harrison <Caroline.Harrison@asu.edu>

Subject: Letter of support for the proposed BS in Sustainable Food Systems

Dear Amy,

I am writing to ask for a letter of support for the proposed BS in Sustainable Food Systems. My hope is that you could provide a supporting letter on or before next **Friday, February 8**. As you will see in the attached document, the proposed degree includes a large number of electives that draw on courses from 10 colleges. The purpose is to give students the opportunity to specialize in one of 7 domains: Procurement, Ecosystem Science, Business & Innovation, Educational Leadership, Global Engagement, Policy & Governance, and Public Health & Nutrition.

From WPC, we have identified the following courses as electives that span multiple domains, but we are certainly happy to modify, add, or subtract as you see fit:

Prefixes:

AGB, BUS, CIS, ECN, ENT, MGT, MKT, SCM,

Courses and Focus Areas

AGB 100	Introduction to Agribusiness	Business
AGB 250	Resource Allocation: Food and Agriculture	Business
AGB 250	Resource Allocation: Food and Agriculture	Procurement
AGB 302	International Management and Agribusiness (G)	Business
AGB 302	International Management and Agribusiness	Global
AGB 321	Agribusiness Marketing	Business
AGB 333	Agribusiness Finance	Business
AGB 366	Agribusiness Production Technologies	Business
AGB 414	Food and Agribusiness Policy Issues (L)	Business
AGB 414	Food and Agribusiness Policy Issues (L)	Nutrition
AGB 414	Food and Agribusiness Policy Issues	Policy
AGB 420	Food Advertising and Promotion	Business
AGB 420	Food Advertising and Promotion	Nutrition
AGB 425	Food Supply Networks	Business
AGB 425	Food Supply Networks	Nutrition
AGB 425	Food Supply Networks	Procurement
AGB 435	Commodity Futures and Options Markets	Business
AGB 435	Commodity Futures and Options Markets	Procurement
AGB 440	Food Safety	Business
AGB 440	Food Safety	Procurement
AGB 445	Food Retailing	Business
AGB 445	Food Retailing	Procurement
AGB 452	Global Food and Agriculture Policy	Business
AGB 452	Global Food and Agriculture Policy	Global
AGB 452	Global Food and Ag Policy	Policy
AGB 456	Food Product Innovation and Development	Business
AGB 456	Food Product Innovation and Development	Procurement
AGB 481	Strategic Pricing in Food Markets (prereq AGB 250 or ECN 212)	Business
AGB 481	Strategic Pricing in Food Markets (prereq AGB 250 or ECN 212)	Procurement
BUS 424	Sales and Negotiations (prereq MKT 300)	Business
BUS 434	Business Risk Management	Business
CIS 105	Computer Applications and Info Technology	Skills
CIS 300	Web Design and Development	Skills

ECN 211 Macroeconomic Principles	Skills
ECN 212 Microeconomic Principles	Skills
ENT 305 Principles of Entrepreneurship	Business
ENT 340 Creativity and Innovation (prereq ENT 290 or 305 or MGT 290)	Business
ENT 360 Entrepreneur and Value Creation	Business
MGT 430 Negotiations	Skills
MKT 300 Marketing and Business Performance	Business
MKT 390 Essentials of Marketing	Business
MKT 391 Essentials of Selling	Business
MKT 395 Essentials of Advertising and Marketing Communication	Business
MKT 435 Entrepreneurial Marketing (prereq MKT 300)	Business
SCM 301 Intro to Modern Global Supply Management	Business
SCM 301 Intro to Modern Global Supply Management	Procurement

Thanks, and please let me know if you have any questions or concerns.

Chris

Christopher Boone

Dean and Professor

<image003.jpg>

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Executive Assistant: Lorraine.Protocollo@asu.edu

480.965.2236

Subject: RE: Letter of support for the proposed BS in Sustainable Food Systems
Date: Friday, February 1, 2019 at 5:09:03 PM Mountain Standard Time
From: Patrick Kenney
To: Christopher Boone
CC: Caroline Harrison
Attachments: image001.jpg

Hi Chris, we support this proposal in CLAS. Good luck with getting it off the ground.

Thanks, Pat

Patrick J. Kenney
Dean, College of Liberal Arts and Sciences
Foundation Professor, School of Politics and Global Studies
Arizona State University

From: Christopher Boone <Christopher.G.Boone@asu.edu>
Sent: Friday, February 01, 2019 1:30 PM
To: Patrick Kenney <pkenney@asu.edu>
Cc: Caroline Harrison <Caroline.Harrison@asu.edu>
Subject: Letter of support for the proposed BS in Sustainable Food Systems

Dear Pat,

I am writing to ask for a letter of support for the proposed BS in Sustainable Food Systems. My hope is that you could provide a supporting letter on or before next **Friday, February 8**. As you will see in the attached document, the proposed degree includes a large number of electives that draw on courses from 10 colleges. The purpose is to give students the opportunity to specialize in one of 7 domains: Procurement, Ecosystem Science, Business & Innovation, Educational Leadership, Global Engagement, Policy & Governance, and Public Health & Nutrition.

From CLAS, we have identified the following courses that align with multiple domains as well as skills electives. We are certainly happy to modify, add, or subtract as you see fit.

AIS, ASB, BIO, CDE, CHM, COM, EDP, ENG, GCU, GIS, JUS, PLB, POS, SES, SGS, SSH, SST, USL, SCN,

Courses and Focus Areas

AIS 180	Intro/American Indian Studies	Global
AIS 320	AI Philosophies & World Views (HU, C)	Global
AIS 480	Actualizing Decolonization	Global
ASB 100	Intro to Global Health	Nutrition
ASB 301	Global History of Health (SB, G, H)	Nutrition
ASB 305	Poverty and Global Health	Global
ASB 443	Cross-Cultural Studies in Global Health (prereq SSH 100 or ASB 100) (L or SB, G)	Nutrition
BIO 100	or BIO 181 The Living World or General Biology I (SQ)	Ecosystems
BIO 100 or 181	The Living World or General Biology (SQ)	Nutrition
BIO 130	Intro to Environmental Science (SQ)	Ecosystems
BIO 182	General Biology II (prereq BIO 181) (SQ)	Ecosystems
BIO 182	General Biology II (prereq BIO 181) (SQ)	Nutrition
BIO 304	Plants and Civilization (prereq BIO 181 or 188 and 182)	Ecosystems
BIO 320	Fundamentals of Ecology (prereq BIO 181 and 182)	Ecosystems
BIO 322	Conservation of Biology (prereq BIO 181 and 182)	Ecosystems

BIO 386	General Entomology (prereq BIO 181 and 182)	Ecosystems
BIO 418	Soil Ecology	
Ecosystems		
BIO 429	Human Impact on Ecosystem Functioning	Ecosystems
BIO 434	People and Nature: Ecosystem Services (prereq MAT 117 or SOS 101)	Ecosystems
CDE 232	Human Development (SB)	Education
CDE 337	Early Childhood Intervention	Education
CHM 101	Introductory Chemistry	Science
CHM 113	General Chemistry I	Science
CHM 114	General Chemistry for Engineers	Science
COM 225	Public Speaking	Skills
COM 459	Social Media Networks	Skills
EDP 310	Topic: Developing as a Leader (SB)	Education
EDP 310	Topic: Motivation (SB)	Education
EDP 310	Topic: Multicultural Issues (SB)	Education
EDP 310	Topic: Children and Poverty (SB)	Education
EDP 310	Ed Psychology for Non-Teachers (SB)	Education
ENG 216	Persuasive Writing on Public Issues	Skills
GCU 121	World Geography	Global
GCU 432	Geography of China	Global
GIS 205	Geographic Info Science I	Skills
GIS 211	Geographic Info Science II (prereq GIS 205)	Skills
JUS 214	The Pursuit of Justice (SB)	Policy
PLB 108	Concepts in Plant Biology	
Ecosystems		
PLB 302	Plants & Civilization (prereq BIO 181 or 188 and BIO 182, 187)	Ecosystems
POS 160	Global Politics (SB, G)	Global
POS 216	State and Local Government	Policy
POS 230	Curr Issues/Nat; Politics (L or SB)	Policy
POS 240	Introduction to Southeast Asia (HU or SB, G)	Global
POS 260	Curr Issues in Intl Politics (L or SB, G)	Global
POS 300	Contemp Global Controversies (SB, G)	Global
POS 310	American National Government (SB)	Policy
POS 313	The Congress (SB)	Policy
POS 325	Public Policy Development (SB)	Policy
POS 333	Interest Groups (SB)	Policy
POS 348	Do You Want to Build a Nation (L)	Global
POS 367	World Pol & Global Inequalities (G)	Global
POS 417	Arizona Politics (SB)	Policy
POS 454	Mexico (SB, G)	Global
POS 471	Constitutional Law I (SB)	Policy
POS 472	Constitutional Law II (SB)	Policy
POS 480	Global Justice	Global
POS 480	Global Justice (G)	Policy
SES 106	Habitable Worlds	
Ecosystems		
SGS 203	Contemporary Global Trends (SB, G)	Global
SSH 301	Global History of Health	Nutrition
SST 220	Intro to Social Transformation	Skills
USL 210	Srvclrning: Intro Commtty (L, C)	Education
USL 402	Service Learning: Educ & Youth	Education

SCN 209	Environmental Education Prjct (GS)	Education
SCN 300	Found. Of Environ. Ed	
Education		
SCN 301	Ecol & Nat Hist Sonoran Desert	Education
SCN 302	Environmental Education	Education

Thanks, and please let me know if you have any questions or concerns.

Chris

Christopher Boone

Dean and Professor



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Executive Assistant: Lorraine.Protocollo@asu.edu

480.965.2236

Caroline Harrison

From: Jonathan Koppell
Sent: Friday, February 1, 2019 3:42 PM
To: Christopher Boone
Cc: Caroline Harrison; Sian Mooney
Subject: RE: Letter of support for the proposed BS in Sustainable Food Systems
Attachments: BS SFS Proposal Docs for Support Requests.pdf

Yes, I am happy to support. I am also asking Dr. Sian Mooney who as Associate Dean oversees our curriculum and interdisciplinary degree programs to offer any suggestions of additional courses that you might integrate. As you suspect, we actually have a lot that would fit here.

JK

From: Christopher Boone <Christopher.G.Boone@asu.edu>
Sent: Friday, February 1, 2019 1:17 PM
To: Jonathan Koppell <koppell@asu.edu>
Cc: Caroline Harrison <Caroline.Harrison@asu.edu>
Subject: Letter of support for the proposed BS in Sustainable Food Systems

Dear Jonathan,

I am writing to ask for a letter of support for the proposed BS in Sustainable Food Systems. My hope is that you could provide a supporting letter on or before next **Friday, February 8**. As you will see in the attached document, the proposed degree includes a large number of electives that draw on courses from 10 colleges. The purpose is to give students the opportunity to specialize in one of 7 domains: Procurement, Ecosystem Science, Business & Innovation, Educational Leadership, Global Engagement, Policy & Governance, and Public Health & Nutrition.

From the Watts College, we have identified the following courses that align with multiple domains. We are certainly happy to modify, add, or subtract as you see fit.

Courses and Focus Areas

NLM 300	Fundraising and Resource Development	Skills
PAF 201	Economics and Public Policy	Policy
PAF 340	Contemporary Policy Challenges	Policy
PAF 420	Public Leadership	Policy

Thanks, and please let me know if you have any questions or concerns.

Chris

Christopher Boone

Dean and Professor



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Caroline Harrison

From: Duane Roen
Sent: Monday, February 04, 2019 12:56 PM
To: Christopher Boone
Cc: Caroline Harrison
Subject: RE: Letter of support for the proposed BS in Sustainable Food Systems

Chris and Caroline,

CISA is delighted to support your proposal for a BS in Sustainable Food Systems, and we are very happy to have our courses listed as electives.

Thanks for including us.

Best,
Duane

Duane Roen
Vice Provost, Polytechnic campus
Dean, College of Integrative Sciences and Arts
Dean, University College
Arizona State University
Mail Code: 2780
7271 E Sonoran Arroyo Mall
Mesa, AZ 85212-6415
P: 480-727-6513

From: Christopher Boone <Christopher.G.Boone@asu.edu>
Sent: Friday, February 1, 2019 1:15 PM
To: Duane Roen <Duane.Roen@asu.edu>
Cc: Caroline Harrison <Caroline.Harrison@asu.edu>
Subject: FW: Letter of support for the proposed BS in Sustainable Food Systems

Dear Duane,

I am writing to ask for a letter of support for the proposed BS in Sustainable Food Systems. My hope is that you could provide a supporting letter on or before next **Friday, February 8**. As you will see in the attached document, the proposed degree includes a large number of electives that draw on courses from 10 colleges. The purpose is to give students the opportunity to specialize in one of 7 domains: Procurement, Ecosystem Science, Business & Innovation, Educational Leadership, Global Engagement, Policy & Governance, and Public Health & Nutrition.

From CISA we have identified the following courses that align with multiple domains. We are certainly happy to modify, add, or subtract as you see fit.

ABS, OGL, STS,

Courses and Focus Areas

ABS 207	Applied Plant Taxonomy (prereq BIO 182)	Ecosystems
ABS 260	Fundamental of Sustainable Horticulture	Ecosystems
ABS 270	Sustainable Biological Systems	Ecosystems
ABS 311	Molecular and Cellular Bio (prereq BIO 182)	Ecosystems
ABS 314	Applied Plant Physiology (prereq BIO 182)	Ecosystems
ABS 318	Unseen Life on Earth	Ecosystems

ABS 368	Plant Propagation	Ecosystems
ABS 370	Ecology (prereq BIO 181)	Ecosystems
ABS 380	Restoration and Wildlife Plants (prereq ABS 207)	Ecosystems
ABS 394	Topic: Food and Human Health	Ecosystems
ABS 460	Organic Gardening	Ecosystems
ABS 464	Desert Horticulture (prereq ABS 264)	Ecosystems
OGL 200	Intro to Org Leadership	Education
OGL 220	Behavioral Dynamics in Org	Education
OGL 240	Intro to Product Management	Skills
OGL 260	Resources Allocation in Org	Education
OGL 326	Project Procurement Management (prereq OGL 240)	Procurement
OGL 355	Leading Org Innovation	Education
STS 329	Technology in Developing Countries	Business
STS 329	Technology in Developing Countries	Global
STS 332	Global Issues in Science and Technology	Global

Thanks, and please let me know if you have any questions or concerns.

Chris

Christopher Boone

Dean and Professor



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Executive Assistant: Lorraine.Protocollo@asu.edu

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Caroline Harrison

From: Todd Sandrin
Sent: Friday, February 08, 2019 2:39 PM
To: Christopher Boone
Cc: Caroline Harrison
Subject: RE: Letter of support for the proposed BS in Sustainable Food Systems

Thanks so much for the reminder, Chris! I regret the delay in my reply.

New College supports this exciting degree program and envisions no negative impacts on our programs or courses. In fact, our School of Social and Behavioral Sciences is delighted that some of the courses it offers are included, and the School further suggested possible inclusion of the following:

SOC 331 - Environmental Sociology
POS / SOC 437 - Women, Power and Politics
SBS 200 - Introduction to Social and Behavioral Sciences (which is offered online)

Thanks again, Chris!

Have a great weekend!

Best,
Todd

Todd R. Sandrin, Ph.D.

Dean, New College of Interdisciplinary Arts and Sciences

Vice Provost, West campus

Professor, School of Mathematical and Natural Sciences

Senior Sustainability Scientist - Julie Ann Wrigley Global Institute of Sustainability



From: Christopher Boone
Sent: Friday, February 8, 2019 2:19 PM
To: Todd Sandrin <Todd.Sandrin@asu.edu>
Cc: Caroline Harrison <Caroline.Harrison@asu.edu>
Subject: Re: Letter of support for the proposed BS in Sustainable Food Systems

Hi Todd,

Have you had a chance to review? If it's too quick, we can remove the JHR courses from the proposal and see if we can add them later. Just as an FYI, we have support from all the other participating colleges.

Thanks,
Chris

Christopher Boone

Dean and Professor



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Executive Assistant: Lorraine.Protocollo@asu.edu

480.965.2236

From: Todd Sandrin <Todd.Sandrin@asu.edu>
Date: Friday, February 1, 2019 at 1:30 PM
To: Christopher Boone <Christopher.G.Boone@asu.edu>
Cc: Caroline Harrison <Caroline.Harrison@asu.edu>
Subject: RE: Letter of support for the proposed BS in Sustainable Food Systems

You bet, Chris. Very exciting degree program.

I'll connect with my team and be back in touch no later than mid-next week.

Have a great weekend.

Todd

Todd R. Sandrin, Ph.D.

Dean, New College of Interdisciplinary Arts and Sciences

Vice Provost, West campus

Professor, School of Mathematical and Natural Sciences

Senior Sustainability Scientist - Julie Ann Wrigley Global Institute of Sustainability



From: Christopher Boone
Sent: Friday, February 1, 2019 1:28 PM
To: Todd Sandrin <Todd.Sandrin@asu.edu>
Cc: Caroline Harrison <Caroline.Harrison@asu.edu>
Subject: Letter of support for the proposed BS in Sustainable Food Systems

Dear Todd,

I am writing to ask for a letter of support for the proposed BS in Sustainable Food Systems. My hope is that you could provide a supporting letter on or before next **Friday, February 8**. As you will see in the attached document, the proposed degree includes a large number of electives that draw on courses from 10 colleges. The purpose is to give students the opportunity to specialize in one of 7 domains: Procurement, Ecosystem Science, Business & Innovation, Educational Leadership, Global Engagement, Policy & Governance, and Public Health & Nutrition.

From New College, we have identified the following courses that align with the Global Engagement domain. We are certainly happy to modify, add, or subtract as you see fit.

Courses and Focus Areas

JHR 305	Theory Soc Justice Human Rts (SB, G)	Global
JHR 484	Topic: Human Trafficking	Global

Thanks, and please let me know if you have any questions or concerns.

Chris

Christopher Boone

Dean and Professor



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Caroline Harrison

From: David Guston
Sent: Friday, February 1, 2019 2:04 PM
To: Christopher Boone
Cc: Caroline Harrison
Subject: Re: Letter of support for the proposed BS in Sustainable Food Systems

Chris

Happy to support – how about including FIS 301 Innovation and Society and FIS 308 Politics, Markets and Innovation in your Business and Innovation electives?

Dave

David H. Guston
Foundation Professor
Director, School for the Future of Innovation in Society
Arizona State University

From: Christopher Boone <Christopher.G.Boone@asu.edu>
Date: Friday, February 1, 2019 at 1:08 PM
To: David Guston <David.Guston@asu.edu>
Cc: Caroline Harrison <Caroline.Harrison@asu.edu>
Subject: Letter of support for the proposed BS in Sustainable Food Systems

Dear Dave,

I am writing to ask for a letter of support for the proposed BS in Sustainable Food Systems. My hope is that you could provide a supporting letter on or before next **Friday, February 8**. As you will see in the attached document, the proposed degree includes a large number of electives that draw on courses from 10 colleges. The purpose is to give students the opportunity to specialize in one of 7 domains: Procurement, Ecosystem Science, Business & Innovation, Educational Leadership, Global Engagement, Policy & Governance, and Public Health & Nutrition. Students can also choose from certain skills courses. We have listed **FIS 305 Ways of Knowing** as one of the skills electives.

Thanks, and please let me know if you have any questions or concerns.

Chris

Christopher Boone

Dean and Professor



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Executive Assistant: Lorraine.Protocollo@asu.edu

480.965.2236

Subject: Re: Letter of support for the proposed BS in Sustainable Food Systems
Date: Sunday, February 3, 2019 at 3:47:25 PM Mountain Standard Time
From: Kyle Squires
To: Christopher Boone
CC: Caroline Harrison, Annette Bowers
Attachments: image001.jpg

Hi Chris,

This is great - no concerns.

Do you need an actual letter or would an email response to your note below work? Thanks,

- Kyle

From: Christopher Boone <christopher.g.boone@asu.edu>
Sent: Friday, February 1, 2019 1:23 PM
To: Kyle Squires
Cc: Caroline Harrison
Subject: Letter of support for the proposed BS in Sustainable Food Systems

Dear Kyle,

I am writing to ask for a letter of support for the proposed BS in Sustainable Food Systems. My hope is that you could provide a supporting letter on or before next **Friday, February 8**. As you will see in the attached document, the proposed degree includes a large number of electives that draw on courses from 10 colleges. The purpose is to give students the opportunity to specialize in one of 7 domains: Procurement, Ecosystem Science, Business & Innovation, Educational Leadership, Global Engagement, Policy & Governance, and Public Health & Nutrition.

From FSE, we have identified the following courses that align with multiple domains. We are certainly happy to modify, add, or subtract as you see fit.

CEE, TEM, TMC,

Courses and Focus Areas

CEE 181	Technological, Social, and Sustainable Systems	Ecosystems
TEM 450	Design for the Developing World	Global
TEM 455	Global Impact Entrepreneurship	Business
TMC 481	Sustainable Food Management	Business
TMC 481	Sustainable Food Management	Procurement

Thanks, and please let me know if you have any questions or concerns.

Chris

Christopher Boone

Caroline Harrison

From: Sian Mooney
Sent: Thursday, February 07, 2019 2:00 PM
To: Christopher Boone
Cc: Jonathan Koppell; Caroline Harrison
Subject: Watts College- Letter of support for the proposed BS in Sustainable Food Systems
Attachments: BSFood&sustainability.pdf

Dear Chris,

The Watts College of Public Service and Community Solutions is supportive of the proposed BS in Sustainable Food Systems. I have attached a document that identifies additional Watts College courses that could also be included as electives, if you choose. We wish you the best for a successful program and look forward to partnering with you.

Best regards,
Sian

Siân Mooney, Ph.D.

Associate Dean & College Professor
Professor | [School of Public Affairs](#)
Senior Sustainability Scientist | [Wrigley Global Institute of Sustainability](#)
Faculty Affiliate | [Center for Biodiversity Outcomes & Global Security Initiative](#)
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From: Christopher Boone <Christopher.G.Boone@asu.edu>
Sent: Friday, February 1, 2019 1:17 PM
To: Jonathan Koppell <koppell@asu.edu>
Cc: Caroline Harrison <Caroline.Harrison@asu.edu>
Subject: Letter of support for the proposed BS in Sustainable Food Systems

Dear Jonathan,

I am writing to ask for a letter of support for the proposed BS in Sustainable Food Systems. My hope is that you could provide a supporting letter on or before next **Friday, February 8**. As you will see in the attached document, the proposed degree includes a large number of electives that draw on courses from 10 colleges. The purpose is to give students the opportunity to specialize in one of 7 domains: Procurement, Ecosystem Science, Business & Innovation, Educational Leadership, Global Engagement, Policy & Governance, and Public Health & Nutrition.

From the Watts College, we have identified the following courses that align with multiple domains. We are certainly happy to modify, add, or subtract as you see fit.

Courses and Focus Areas

NLM 300	Fundraising and Resource Development	Skills
PAF 201	Economics and Public Policy	Policy
PAF 340	Contemporary Policy Challenges	Policy
PAF 420	Public Leadership	Policy

Thanks, and please let me know if you have any questions or concerns.

Chris

Christopher Boone

Dean and Professor



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