

## **A. General Remarks:**

This proposal presents the structure for a new major in Smart and Sustainable Cities (SSC) that will be located under the Public and Urban Affairs (PUA) Bachelors of Arts degree. The vision is to create a strong, transdisciplinary undergraduate program that builds on core knowledge, experiential learning, partnerships across the university and with external stakeholders, and the university's strategic initiatives, and that builds on the strengths and interests of faculty across the School of Public and International Affairs.

Our major will:

- take advantage of the core foundations of SPIA – i.e., policy, planning, governance, and international affairs.
- Build connections across the university and with external stakeholders that support broader educational and research partnerships with the school.
- Leverage the strategic opportunity of school locations in Blacksburg, Washington, D.C., and Richmond to advance and expand undergraduate experiential learning.
- Seek to put *Ut Prosim* into practice and better prepare our students for public service leadership and scholarship.

## **B. Proposed Smart and Sustainable Cities (SSC) major in Public and Urban Affairs (PUA)**

### **I. Purpose**

By 2050 nearly 70% of the world's population will reside in urbanized areas. Over the same horizon, the volume, variety, and velocity of data is expected to continue its exponential growth unabatedly, reaching some 40 Zettabytes (40 trillion gigabytes) of data created by 2020 – that is roughly 160 million times the information stored today by the Library of Congress. The Smart and Sustainable Cities (SSC) major will provide students with a deep understanding of sustainable urban development and how smart technology and urban analytics can be combined in the search for solutions to critical urban challenges. The major will prepare students to understand the dynamics of urban change across time, space, and place and to prepare them for employment in various planning and public policy-related areas and/or for the pursuit of advanced degrees in allied fields.

SSC majors will be able to show competency in their ability to:

- Obtain, process, and analyze data in response to a complex urban problem.
- Critically evaluate the use of data in urban decision making.
- Articulate strategies to advance urban sustainability.

SSC majors will be employed with:

- Local, state, and federal government
- Domestic and international nonprofit and nongovernmental organizations
- Planning and engineering consulting firms
- Real estate developers
- Private industry

SSC majors will be pursuing graduate study in:

- Urban planning and design
- Government and public policy
- International affairs and development
- Law
- Business
- Education
- Architecture
- Landscape architecture
- Construction management

## **II. Justification**

The creation of the Smart and Sustainable (SSC) major is the result of a school decision to merge and elevate the existing concentrations in the Public and Urban Affairs degree into majors. Specifically, SSC represents the elevation and merging of the Urbanization: Planning and Policy concentration and the Public Policy concentration.

There are several key reasons for this action. First, despite the fact that the future looks increasingly urban, there are currently very few urban sustainability and urban data analytics undergraduate programs in the U.S. Therefore, the Smart and Sustainable Cities major will be among the first of its kind in the nation. Second, by merging the concentrations and focusing on sustainability, data analytics, and policy in the urban sphere, we are fully capitalizing on the strengths and interests of faculty across the School of Public and International Affairs. Third, as SSC major will provide students with an opportunity to study in the National Capital Region through the new *Washington Semester in Global Engagement* (offered by GIA) and the well-established *Washington Semester in Leadership through Policy and Governance* (offered by UAP and CPAP). The school is currently developing plans to offer a Richmond Semester through our growing campus in Virginia's capital city. Finally, the SSC major has been designed to support Virginia Tech's strategic initiatives (discussed below).

The attached letters entitled "Discontinuation of the Public and Urban Affairs (PUA) minor" and "Discontinuation of the Concentrations under the Public and Urban Affairs (PUA) Degree" provide the teach-out plans for students currently enrolled in the PUA minor or a PUA Concentration, respectively.

## **III. Relevance**

Over the past several years, Virginia Tech has launched several strategic initiatives – Beyond Boundaries, Destination Areas (DAs), Strategic Growth Areas (SGAs), and InclusiveVT – that together form an ambitious near- and long-term agenda of change for the university. The proposed major in Smart and Sustainable Cities (SSC) responds to these initiatives and provides Virginia Tech with one of the first undergraduate programs in the nation that integrates urban sustainability with urban data analytics.

The Beyond Boundaries initiative has advanced the notion of VT-shaped learning, which nurtures disciplinary depth, cross-disciplinary capabilities, and experiential learning that integrates technology and an understanding of diversity across the globe. The new PUA degree core advances VT-shaped learning by providing students with knowledge and skills in transdisciplinary problem solving, collaborative policy-making and planning, and public service leadership. The SSC core builds on this foundation by focusing on knowledge and skills in sustainable urbanization and urban data analytics, which will be applied to critical urban problems through a capstone studio with external partners. The Washington Semesters can also be taken to satisfy the SSC elective requirements, along with several international study abroad programs in Europe, Africa, and China, which provide unique opportunities for experiential learning.

With regards to the DAs, several of the new courses in the SSC major have been designed to support future pathways minors currently under consideration for the Data Analytics and Decision Sciences (DADS) and Intelligent Infrastructure for Human-Centered Communities (IIHCC) DAs. For example, the three (1-credit) courses in urban analytics and the course in data and the art of decision-making could support a future DADS pathways minor. Similarly, the new course on urban sustainability – that will be delivered in partnership with the Department of Geography – could support a new IIHCC pathways minor.

The themes of inclusiveness, values, ethics, and urban inequity and diversity are integrated in courses throughout the curriculum, which will enable the SSC major to support future developments in the Equity and Social Disparity in the Human Condition and Policy SGAs.

Finally, the SSC major's courses will provide opportunities to help integrate the work of key DAs and SGAs, particularly in the areas of urban policy, planning, and governance.

#### **IV. Required Resources**

No additional resources are needed at this time. However, when we reach two-hundred (200) majors under the PUA degree, additional resources will be required in terms of faculty, graduate student assistance, advising, and administrative assistance in order to maintain academic and student service quality.

#### **V. Proposed Changes**

##### ***Core Degree Requirements***

There will be twenty-nine (29) credit hours required for the PUA degree core. We have retained twenty-one (21) credit hours from the original major requirements for the PUA degree and added eight (8) credit hours of additional coursework.

We have retained:

- UAP 1024: Public Issues in an Urban Society (3 credits)
- PSCI 1014: Introduction to US Government and Politics (3 credits)
- STAT 3604: Statistics for Social Sciences (3 credits)

- UAP 3714: The U.S. Policy Process (3 credits) (cross listed with PSCI 3714)
- UAP 3744: Public Policy Analysis (3 credits) (cross listed with PSCI 3744)
- UAP 4754: Legal Foundations of Planning (3 credits)
- UAP 4914: Seminar in Public and Urban Affairs (3 credits)

We are adding:

- UAP 1004: Introduction to Careers in Urban Affairs and Planning (1 credit)
- SPIA 2114: Public Service Leadership (1 credit)
- SPIA 2554: Collaborative Policy-Making & Planning (3 credits)
- SPIA 3554: Transdisciplinary Problem Solving for Social Issues (3 credits)

### ***Smart and Sustainable Cities major requirements***

In addition to the PUA core degree requirements, students pursuing a major in Smart and Sustainable Cities (SSC) will need to complete twenty-four (24) credit hours for the SSC major core (15 credit hours of required courses and 9 credit hours of restricted electives).

- Required courses:
  - SPIA 2005: Urban Analytics (1 credit)
  - SPIA 2006: Urban Analytics (1 credit)
  - SPIA 2104: Urban Analytics for Decision-making (1 credit)
  - GEOG 2244/SPIA 2244: Sustainable Urbanization (3 credits)
  - UAP 3024: Urban and Regional Analysis (3 credits)
  - SPIA 4454: Future of Cities (3 credits)
  - SPIA 4464: Data and the Art of Decision-Making (3 credits)
- The nine (9) credit hours of restricted electives will be chosen from an approved course list.
- The electives are a combination of classes from SPIA, UAP, PSCI, GEOG, LAR, AAEC, FREC, and ECON. We have received a letter of support from all impacted departments (outside of UAP and SPIA) that are included in the list of restricted electives.

### **VI. Plan to Integrate the New Majors**

Effective Fall 2018, the School of Public and International Affairs plans to offer the Smart and Sustainable Cities major under the PUA degree program. This transition will result in the following:

- All concentrations under the existing PUA degree will be removed and replaced with two majors (Smart and Sustainable Cities and Environmental Policy and Planning) housed under the degree.
- The UAP program will stop accepting new students into the concentration tracks of the PUA degree in Spring 2018.

- All students in a concentration track in the PUA degree will have until December 2021 to complete their requirements, consistent with Presidential Policy Memorandum 148, Graduation Requirement Policy.
- Should a student in one of the PUA concentrations leave the university and not complete the program by December 2021, the School of Public and International Affairs is committed to working with the student to (1) identify a path for completion under a major within the PUA degree, or (2) assist the student to identify another major within the university that meets their needs.
- Students in the Class of 2020 that are currently enrolled in the concentration track under the PUA degree will have the option to switch into a major under the PUA degree. Students will have the opportunity to work directly with the departmental academic advisor to determine the best course of action.
- Incoming first-year and transfer students in the Fall of 2018 will be admitted into the new SSC or EPP majors under the PUA degree.

## **VII. Methods of Communication**

### ***Communication to Students***

- Students who are currently pursuing concentrations under the PUA degree will be notified by email of the changes to ensure they understand that they can graduate with a concentration in PUA provided they complete all of their requirements by December 2021. This information will also be communicated through one-on-one advising sessions with existing students.
- The academic advisor will contact all first-year and transfer students that have been offered admission to PUA for Fall 2018 to inform them of the changes to the structure of PUA and the majors offered within it.
- The instructors of UAP 1004 Introduction to Careers in UAP will communicate information regarding the new majors directly to incoming first-year students (beginning Fall 2017).
- Information sessions will be held for interested students in Blacksburg and through online platforms such as Facebook Live.
- Information regarding the new majors will be available in the advising office in the Architecture Annex, on the SPIA/UAP webpages, and through the CAUS Dean's office in Cowgill.

### ***Communication to University Studies and Undergraduate Admissions***

- The School of Public and International Affairs (SPIA) met with the advising team from University Studies and the directors in Undergraduate Admissions in Fall 2016 to inform them about the forthcoming changes.
- Upon approval of the SSC major, SPIA faculty will meet with the advising team from University Studies and the directors in Undergraduate Admissions to explain the changes that have been made.

- Information about the new majors and the transition to them will be available on the SPIA/UAP website. Relevant informational material will be available through the advising office in the Architecture Annex and the CAUS Dean's office in Cowgill.

**College of Architecture and Urban Studies**  
 School of Public and International Affairs (SPIA)  
 Bachelor of Arts in Public and Urban Affairs (PUA)  
 Major – Smart and Sustainable Cities (SSC)  
 Checksheet for Students Graduating in Calendar Year 2020

I. Core Degree Requirements	29 Credit Hours
II. Requirements for SSC Major	24 Credit Hours
III. Curriculum for Liberal Education	36 Credit Hours
IV. Free Electives	31 Credit Hours
<b>Total Required for Environmental Policy and Planning Major</b>	
	<b>120 Credit Hours</b>

**Departmental Policies**

**Hours Requirement:** A total of 120 hours is required to graduate with a PUA degree of which there are fifty-three (53) required hours for the Smart and Sustainable Cities major (PUA Core + SSC major core).

**In-major GPA:** All of the courses in sections I and II are included in the in-major GPA calculation. A GPA of 2.0 or above both overall and in-major GPA is required for graduation.

**Satisfactory Progress:** To proceed satisfactorily toward a degree, a student must complete UAP 1024, PSCI 1014, SPIA 2114, STAT 3604, SPIA 2005, SPIA 2006, and SPIA 2104 by the end of the semester in which 60 hours have been attempted; and maintain an in-major GPA of 2.0 or above.

**Dual Use of Courses:** No course can double count within or between SPIA-related majors or minors with the exception of the Core Degree Requirements (Section I below).

**Intra-SPIA Program majoring and minorng:** Students may pursue more than one major or minor associated with the School of Public and International Affairs Program. In this case, the policy pertaining to the “Dual Use of Courses” will apply.

**Prerequisites:** Some courses listed on this checksheet have prerequisites. Be sure to consult the University Catalog and/or check with your advisor.

**I. PUA Core Degree Requirements (29 Credit Hours)**

**Required PUA Degree Core Courses (29 credit hours)**

- UAP 1004 Intro to Careers in Urban Affairs and Planning (1)
- UAP 1024 Public Issues in an Urban Society (3)
- PSCI 1014 Introduction to US Government and Politics (3)
- SPIA 2114 Public Service Leadership (1)
- SPIA 2554 Collaborative Policy-Making & Planning (3)
- STAT 3604 Statistics for the Social Sciences (3) (pre. MATH 1015 or 1014)
- SPIA 3554 Transdisciplinary Problem Solving for Social Issues (3)
- UAP 3714 The U.S. Policy Process (3) (cross-listed with PSCI 3714, pre. PSCI 1014)
- UAP 3744 Public Policy Analysis (3) (cross-listed with PSCI 3744, pre. PSCI 1014)
- UAP 4754 Legal Foundations of Planning (3)
- UAP 4914 Seminar in Public and Urban Affairs (3) (pre. SPIA 2554, SPIA 3554, and UAP 4754)

**II. Requirements for the SSC Major (24 Credit Hours)**

**Required Core Courses for the SSC Major (15 credit hours)**

- SPIA 2244 Sustainable Urbanization (3) (cross-listed with GEOG 2244)
- SPIA 2005 Introduction to Urban Analytics (1)
- SPIA 2006 Introduction to Urban Analytics (1)

- SPIA 2104 Urban Analytics for Decision-Making (1)
- UAP 3024 Urban and Regional Analysis (3)
- SPIA 4454 Future of Cities (3) (pre. SPIA 2244 or GEOG 2244)
- SPIA 4464 Data and the Art of Policy-Making and Planning (3)

### **Required Elective Courses for the SSC Major (9 credit hours)**

*Nine (9) hours of elective courses are required.*

- \_\_\_\_\_ (3)                       \_\_\_\_\_ (3)                       \_\_\_\_\_ (3)

#### **Urban Policy and Decision-Making**

- UAP 3014 Urban Policy and Planning (pre. UAP 1024)
- UAP 3264 Contemporary Urban Issues (pre. Junior Standing)
- UAP 4344 Law of Critical Environmental Areas
- UAP 4374 Land Use and Environment: Planning and Policy (pre. Junior Standing)
- UAP 4394 Community Renewable Energy Systems (pre. MATH 1025 or MATH 1016)
- UAP 4854 Planning the Urban Infrastructure (pre. UAP 4754)
- UAP 4624 Washington Sem: Seminar in American Politics and Public Policy (cross-listed with PSCI 4624, pre. Junior Standing)
- UAP 4644 Washington Sem: Politics, Policy, and Administration in a Democracy (cross-listed with PSCI 4644, pre. UAP 3714)
- SPIA 4964 Field Study
- PSCI 3424 State and Local Government (pre. PSCI 1014)
- PSCI 3434 Urban Politics (pre. PSCI 1014)
- SPIA 2314 Active Transportation for a Healthy, Sustainable Planet (cross-listed with HNFE 2314)
- SPIA 4964 Field Study

#### **GIS/Data**

- GEOG 2084 Principles of Geographic Information Systems
- GEOG 4084 Modeling with GIS (cross-listed with GEOS 4084, pre: GEOG 2084 and Senior Standing)
- CS 1064 Introduction to Programming in Python
- LAR 3044 Land Analysis and Site Planning (pre. LAR 1004)

#### **Cities, Culture, and Place**

- LAR 2254 Social and Cultural Landscapes
- LAR 3264 People, Community, and Place (pre: LAR 2254)
- LAR 4034 Evolution of the American Landscape
- FREC 2134 Plants and Greenspaces in Urban Communities (cross-listed with HORT 2134)
- GEOG 3244 US Cities (pre. Junior Standing)
- HIST 3156 History of American Cities

#### **Economics**

- UAP 2004 Principles of Real Estate (cross-listed with REAL 2004)
- ECON 3024 Economic Justice (pre. ECON 2005 & ECON 2006)
- ECON 4014 Environmental Economics (pre. ECON 2005 or 2116 or 2126 or 2025H)
- AAEC 3324 Environmental and Sustainable Development Economics (pre. AAEC 1005 or ECON 2005)

#### **International**

- UAP 3954 Study Abroad
- UAP 4764 International Development Policy and Planning (cross-listed with SOC 4764 & GEOG 4764, pre. Junior Standing)



**III. CURRICULUM FOR LIBERAL EDUCATION (CLE) Requirements (34-36 Credit Hours)**

- |  |   |
|--|---|
| <p><b>Area 1 Writing and Discourse (6 credits)</b></p>   | <p><input type="checkbox"/> ENGL 1105</p> <p><input type="checkbox"/> ENGL 1106</p> |
| <p><b>Area 2 Ideas, Cultural Traditions, and Values (6 credits)</b><br/>3 credit hours must be from either:<br/>PHIL 1304 or<br/>PHIL 2304</p>                                     | <p><input type="checkbox"/> _____</p> <p><input type="checkbox"/> _____</p>         |
| <p><b>Area 3 Society and Human Behavior (6 credits)</b><br/>ECON 2005 and 2006 or<br/>AAEC 1005 and 1006</p>   | <p><input type="checkbox"/> _____</p> <p><input type="checkbox"/> _____</p>         |
| <p><b>Area 4 Scientific Reasoning and Discovery (6 credits)</b><br/><i>Complete any Area 4 lecture sequence.</i><br/><i>No Labs are required</i></p>                               | <p><input type="checkbox"/> _____</p> <p><input type="checkbox"/> _____</p>         |
| <p><b>Area 5 Quantitative and Symbolic Reasoning (6 credits)</b><br/>MATH 1014 and one additional 3 credit Area 5 course<br/>STAT 3604 cannot be used to meet this requirement</p> | <p><input type="checkbox"/> MATH 1014</p> <p><input type="checkbox"/> _____</p>     |
| <p><b>Area 6 Creative and Aesthetic Experience (1-3 credits)</b></p>   | <p><input type="checkbox"/> _____</p>   |
| <p><b>Area 7 Critical Issues in a Global Context (3 credits)</b></p>   | <p><input type="checkbox"/> UAP 3344</p>  |

*The full list of approved courses for each area above can be found in the “Curriculum for Liberal Education Guide” on the Provost’s Office web page ([www.provost.vt.edu](http://www.provost.vt.edu)).*

**IV. Free Electives (minimum of 31 credit hours)**

Free electives make up the remainder of the credits for the Environmental Policy and Planning major. Take as many as needed to reach 120 credits.

- |   |   |   |
|---|---|---|
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**University and Admissions Foreign Language Requirement (No Credits Count Toward the Degree)**

Complete one of the following options

- 2 years of a single foreign, classical, or sign language in high school.
- OR**
- Complete FL 1105-1106 or the equivalent in college (these 6 hours do not count toward the 120 required for graduation)



**School of Public and  
International Affairs**  
201 Architecture Annex  
140 Otey Street, NW  
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January 25, 2018

**RE: Discontinuation of the Public and Urban Affairs (PUA) minor**

To whom it may concern:

After deliberation among the faculty, the School of Public and International Affairs (SPIA), in consultation with the Urban Affairs and Planning (UAP) program, is requesting the discontinuation of the Public and Urban Affairs minor.

Effective Fall 2018, the School of Public and International Affairs will be offering a new minor in Smart and Sustainable Cities (SSC). This minor will replace the Public and Urban Affairs minor. This transition will result in the following:

- The UAP program will stop accepting new students into the Public and Urban Affairs minor after Spring 2018.
- All students currently in the PUA minor will have until December 2021 to complete their requirements, consistent with Presidential Policy Memorandum 148, Graduation Requirement Policy.

Students who are currently pursuing the PUA minor have been notified by email of the changes and understand that they can graduate with a PUA minor provided they complete all of their requirements by May 2021. This date reflects the last scheduled graduation date for all the students currently enrolled in the minor. However, per requirements of Presidential Policy Memorandum 148, Graduation Requirement Policy, any students who need an extension to December 2021 will be accommodated via individual advising. Currently, the PUA minor is relatively small and approximately 25 students will be affected by this decision.

Yours sincerely,

A handwritten signature in black ink that reads 'Ralph Hall'.

Ralph P. Hall  
Director, SPIA Undergraduate Program

January 25, 2018

**RE: Discontinuation of the Concentrations under the Public and Urban Affairs (PUA) Degree**

To whom it may concern:

After deliberation among the faculty, the School of Public and International Affairs (SPIA), in consultation with the Urban Affairs and Planning (UAP) program, is requesting the discontinuation of the following concentrations:

- **Urbanization: Policy and Planning** (approximately 25 students currently enrolled)
- **Public Policy** (approximately 20 students currently enrolled)
- **Environmental Affairs** (approximately 15 students currently enrolled)
- **Global Development** (approximately 5 students currently enrolled)
- **Public and Nonprofit Management** (approximately 5 students currently enrolled)
- **Land Development** (no students currently enrolled)
- **Sustainability** (no students currently enrolled)
- **Urban Design** (no students currently enrolled)

Effective Fall 2018, the School of Public and International Affairs will be offering majors under the PUA degree program. This transition will result in the following:

- All concentrations under the PUA degree will be removed and replaced with two majors – Smart and Sustainable Cities (SSC) and Environmental Policy and Planning (EPP) – housed under the PUA degree.
- The UAP program will stop accepting new students into the PUA concentrations after Spring 2018.
- All students in a PUA degree concentration will have until December 2021 to complete their requirements, consistent with Presidential Policy Memorandum 148, Graduation Requirement Policy.
- Students in the Class of 2020 who are currently enrolled in a PUA degree concentration will have the option to switch into the SSC or EPP major.

Students who are currently pursuing concentrations under the PUA degree have been notified by email of the changes and understand that they can graduate with a PUA concentration provided they complete all of their requirements by May 2021. This date reflects the last scheduled graduation date for all the students currently enrolled in a concentration. However, per requirements of Presidential Policy Memorandum 148, Graduation Requirement Policy, any students who need an extension to December 2021 will be accommodated via individual advising.

Should a student in one of the PUA concentrations leave the university and not complete the program by December 2021, the School of Public and International Affairs is committed to working with the student to (1) identify a path for completion under a major within the PUA degree or (2) assist the student to identify another major within the university that meets their needs.

Yours sincerely,

A handwritten signature in black ink that reads "Ralph Hall". The signature is written in a cursive style with a large, stylized "R" and "H".

Ralph P. Hall  
Director, SPIA Undergraduate Program



**School of Public and  
International Affairs**  
1021 Prince Street  
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TO: CAUS Curriculum Committee  
FROM: Anne M. Khademian  
RE: New Undergraduate Program in SPIA  
DATE: January 25, 2018

In the fall of 2018, the School of Public and International Affairs (SPIA) plans to launch two new majors, one new minor, and one revised minor under a revised Public and Urban Affairs (PUA) (B.A.) degree that will be offered by SPIA.

The PUA degree core is being revised to [1] reduce the number of credit hours in the core and [2] provide three new courses (listed below) that support the new majors/minors. No additional resources are needed to create and teach these three new courses.

- SPIA 2114: Public Service Leadership (1 credit)
- SPIA 2554: Collaborative Policy-Making & Planning (3 credits)
- SPIA 3554: Transdisciplinary Problem Solving for Social Issues (3 credits)

The first new major will be in Environmental Policy and Planning (EPP). This major will replace the existing Environmental Policy and Planning (B.S.) degree that will be discontinued. No additional resources are needed for the proposed EPP major. In addition, the existing EPP minor will be revised so that it aligns with the revised PUA degree core and new EPP major.

The second new major/minor will be in Smart and Sustainable Cities (SSC). This new major/minor will require the creation of six new courses that are listed below. No additional resources are needed for the proposed SSC major/minor or for the following new courses.

- SPIA 2005, 2006: Introduction to Urban Analytics (1 credit each)
- SPIA 2104: Urban Analytics for Decision-Making (1 credit)
- GEOG 2244/SPIA 2244: Sustainable Urbanization (3 credits)
- SPIA 4454: Future of Cities (3 credits)
- SPIA 4464: Data and the Art of Decision-Making and Planning (3 credits)

Finally, the following new course will be offered as an elective in both of the new EPP and SSC majors. No additional resources are needed to create and teach this course.

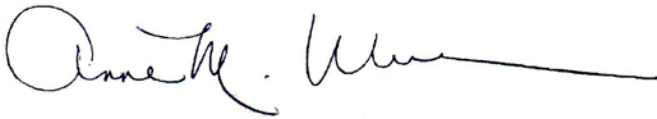
- SPIA 2314/HNFE 2314 Active Transportation for a Healthy, Sustainable Planet (3 credits)

Upon approval of the new EPP major and revised minor, and the new SCC major/minor, the existing PUA degree concentrations and PUA minor will be discontinued.

We are requesting that all of the new courses carry a SPIA prefix to help signal the creation of a School-wide undergraduate program.

Please let me know if you have any questions.

Very best,

A handwritten signature in black ink, appearing to read "Anne Khademian". The signature is fluid and cursive, with a long horizontal line extending to the right.

Anne Khademian  
Director, School of Public and International Affairs



**Ronald D. Fricker, Jr.**  
**Head, Department of Statistics**  
Hutcheson Hall, room 406-A, Virginia Tech  
Blacksburg, Virginia 24061  
540-231-7754  
rf@vt.edu

August 25, 2017

To whom it may concern:

This letter is written in support of the School of Public and International Affairs' (SPIA's) new majors, Smart and Sustainable Cities and Environmental Policy and Planning, being established under the Bachelor of Arts in Public and Urban Affairs (PUA), both of which will require STAT 3604 (Statistics for Social Sciences). STAT 3604 is already a requirement for the B.A. in PUA, so in that sense this is not a new requirement but rather mainly a shift of students to these new majors.

That said, it is my understanding that SPIA anticipates the number of students in this B.A. program increasing by about 40-50 by 2021. This increase will stress our STAT 3604 classes, where we currently plan to continue to offer one online section and one in-person course each semester, but we also already project that these sections will be full with 70 students in the in-person class and from 160+ (fall) to 220+ (spring) students in the online classes.

Thus, while we very much welcome the additional students into STAT 3604 and we will endeavor to fully meet the new needs, we do want to be clear that the course is very much in demand. To the extent that future resources allow, we will expand to meet the SPIA's needs during the academic year. Also, please note that we offer a summer STAT 3604 class online which currently has sufficient room to accommodate the increase.

In summary, we fully support the new majors with the caveat that seats in STAT 3604 are tight and any enrollment expansion may necessitate some students taking the class in the summer.

Sincerely,

R.D. Fricker, Jr.  
Professor and Head

***Invent the Future***



**Stephen Edwards** 7:30 PM (18 hours ago)

to me, ribbens, bradfolg, dcole

Thank you for the information on the new major. In answer to your questions:

The in major elective list for the SSC major is extensive, so we do not > anticipate significantly increasing your course enrollment. Please let > me know if (1) we can add the course listed above to our checksheets,

Yes, the Department of Computer Science supports this addition for the new SSC major.

(2) the course will continue to be offered,

Yes, we will continue to regularly offer this course and have no plans to discontinue or replace it. The only "change" we anticipate is ensuring it meets the requirements for the Pathways Quantitative and Computational Thinking learning outcome (as 3 credits of foundational coverage). CS 1064 is currently scheduled to be submitted for Pathways review this semester.

(3) there are any title and/or number changes forthcoming.

No, we do not anticipate any title or number changes.

-- Steve



August 24, 2017

Dear Chris:

Based on discussion with the faculty member teaching this course, I support the inclusion of HORT/FREC 2134 Plants and Greenspaces in Urban Communities in the proposed new major in Smart and Sustainable Cities (SSC) in the School of Public and International Affairs. I wish you all the best in gaining approval for your new major.



Professor and Department Head



VirginiaTech

College of Natural Resources  
and Environment

Department of Geography (0115)

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220 Stanger Street  
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www.geography.vt.edu

08/23/2017

Chris LaPlante  
Undergraduate Advisor EPP/PUA

Dear Chris:

I support the proposed new major in Smart and Sustainable Cities (SSC) and support the inclusion of the following three GEOG courses in the SSC major:

GEOG 2084 Principles of Geographic Information Systems  
GEOG 4084 Modeling With GIS  
GEOG 3244 The US City

You may add these courses to your checksheets. These courses will continue to be offered. There are no title or number changes to these courses.

Sincerely,

Thomas W. Crawford  
Professor and Chair  
Department of Geography

*Invent the Future*

**Mark Barrow** <mabarro2@vt.edu> 8:42 PM (15 hours ago)

to **Heather, Brianna**, me

Dear Chris,

Thanks for your note, and sorry not to have been able to get back to you sooner. I needed to consult with my Director of Undergraduate Studies to answer your questions and have now been able to do that.

In answer to your questions, 1) yes, we would be happy to have this course added to your checksheets. 2) the faculty member who is currently offering it is nearing retirement, and I wanted to make sure that our other urban historian was interested in continuing the course. It turns out he is, though he may substantially revise it, and if that comes to pass, we will be sure to contact you. And 3) we have no proposal for changing the title or number of the course in process at the moment, but that might happen in the next few years—again we will try to keep you in the loop.

Attached is a copy of my letter of support. Thanks for thinking of us, and please let me know if you need anything else.

Best,  
Mark Barrow

On Aug 18, 2017, at 1:45 PM, Chris LaPlante <[chrisl@vt.edu](mailto:chrisl@vt.edu)> wrote:

Professor Barrow,

I am writing to ask for a letter of support for the proposed new major in Smart and Sustainable Cities (SSC), which the School of Public and International Affairs has been developing for over year. We would like to retain a HIST course that was previously approved for the the PUA degree and use it as an in major elective in the new SSC major. We would like to list the following course on the checksheet:

**HIST 3156    History of American Cities**

We think that this course would enrich the breadth and depth of the SSC major. I have included our draft checksheet for your consideration, if you wish to review the details of our curriculum and the role of the HIST course in it.

The in major elective list for the SSC major is extensive, so we do not anticipate significantly increasing your course enrollment. Please let me know if (1) we can add the course listed above

to our checksheets, (2) the course will continue to be offered, (3) there are any title and/or number changes in the works for the course. Thank you for considering this request and please contact me if you have any questions or need additional information.

Best,

Chris

--

Chris LaPlante  
Undergraduate Advisor EPP/PUA  
209 Architecture Annex (MC 0113)  
[540-231-3831](tel:540-231-3831)  
[chrisl@vt.edu](mailto:chrisl@vt.edu)  
On Twitter: [@VT EPP PUA](https://twitter.com/VT_EPP_PUA)



VirginiaTech

College of Architecture  
and Urban Studies

**Landscape Architecture Program, MC 0190**  
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[www.lar.vt.edu](http://www.lar.vt.edu)

August 24, 2017

RE: Support for the new Smart and Sustainable Cities (SSC) major to be offered through SPIA

To Whom It May Concern:

I am writing in support of the new Smart and Sustainable Cities (SSC) major and excited to be a participating program in its course offerings. The Landscape Architecture Program supports including four LAR courses to be included as restricted electives in the new major. These include:

- LAR 3044 Land Analysis and Site Planning
- LAR 2254 Social and Cultural Landscapes
- LAR 3264 People, Community, and Place
- LAR 4034 Evolution of the American Landscape

These courses are offered on an annual basis and are required of our Bachelor of Landscape Architecture students as well as on a restricted elective list for Landscape Architecture minors. Inclusion of these courses within a list of course options available to SSC majors is not anticipated to require any additional resources other than the possibility of a larger classroom at some future time.

Sincerely,

Terry Clements, FASLA, FCELA, LA  
Professor and Program Chair

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## Memorandum

TO: CLAHS Undergraduate Curriculum Committee  
FROM: Douglas Lind  
Head, Department of Philosophy  
RE: Proposed undergraduate degree program in SSC  
DATE: August 24, 2017

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The Department of Philosophy endorses the proposed undergraduate degree program in Smart and Sustainable Cities (SSC) and supports the inclusion of the Philosophy courses listed below as electives. The Philosophy Department welcomes the enrollment of additional students in these courses, and we acknowledge no additional resources are needed.

PHIL 1304: Morality and Justice  
PHIL 2304: Global Ethics

*Douglas Lind*



VirginiaTech

College of Liberal Arts  
and Human Sciences

**Department of Political Science (0130)**  
Major Williams Hall, Room 531, Virginia Tech  
220 Stanger Street  
Blacksburg, Virginia 24061  
540/231-6571 Fax: 540/231-6078

23 August 2017

Chris LaPlante  
Undergraduate Advisor EPP/PUA  
209 Architecture Annex (MC 0113)  
Virginia Tech

Dear Chris,

The Department of Political Science supports the inclusion of the following three courses in the proposed major in Smart and Sustainable Cities: PSCI 1014 Introduction to United States Politics and Government, PSCI 3714 U.S. Policy Process, and PSCI 3744 Public Policy Analysis. All three are taught at least once each academic year.

This looks like a promising new major. As I have briefly mentioned, other political science courses (e.g., PSCI 3424 State and Local Government, PSCI 3434 Urban Politics) also might be potential candidates for inclusion as electives.

Please let me know if I can provide further information.

Sincerely,

*Karen*

Karen M. Hult  
Professor and Chair

Cc: Dr. Charles Taylor, Director of Undergraduate Studies

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VirginiaTech

College of Liberal Arts  
and Human Sciences

**Department of Political Science (0130)**  
Major Williams Hall, Room 531, Virginia Tech  
220 Stanger Street  
Blacksburg, Virginia 24061  
540/231-6571 Fax: 540/231-6078

25 August 2017

Chris LaPlante  
Undergraduate Advisor EPP/PUA  
209 Architecture Annex (MC 0113)  
Virginia Tech

Dear Chris,

The Department of Political Science supports the inclusion of the two spring Washington Semester courses in the proposed SSC major: IS/PSCI 3624 Washington Semester: Foreign Policy and Diplomacy and IS/PSCI 4984 Washington Semester: Diplomacy Lab. Both are taught each spring semester.

Please let me know if I can provide further information.

Sincerely,

*Karen*

Karen M. Hult  
Professor and Chair

cc: Ralph Hall  
Yannis Stivachtis, Director of International Studies

***Invent the Future***





**TO:** Chris LaPlante, Undergraduate EPP/PUA Advisor  
**FROM:** Matthew T. Holt, AAEC Professor and Head *Matthew T. Holt*  
**SUBJECT:** AAEC Courses in Proposed Major Smart and Sustainable Cities  
**DATE:** 8/31/2017  
**CC:** Dr. Mike Ellerbrock, Chair, AAEC Undergraduate Advisory Committee

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Per our previous exchanges, you have asked AAEC to consider allowing the following AAEC courses to be included in your proposed major Smart and Sustainable Cities (SSC) in the School of Public and International Affairs:

AAEC 1005 Economics of the Food and Fiber System (retain)  
AAEC 1006 Economics of the Food and Fiber System (retain)  
AAEC 3314 Environmental Law (retain)  
AAEC 4314 Environmental Economic Analysis and Management (add)

AAEC 1005 and AAEC 1006 are unrestricted courses, as is AAEC 3314. AAEC 4314 has as a prerequisite AAEC 3314. AAEC faculty offer these courses on a regular basis. Faculty in AAEC concur that these courses should be included as part of your new proposed major.

Please let me know if you have any additional questions or require any further assistance with this matter. Thank you for your interest in collaborating with my Department.



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231-7417 [mattholt@vt.edu](mailto:mattholt@vt.edu)

**TO:** Chris LaPlante, Undergraduate EPP/PUA Advisor  
**FROM:** Matthew T. Holt, AAEC Professor and Head *Matthew T. Holt*  
**SUBJECT:** AAEC 3324 in Proposed Majors for Environmental Policy and Planning and Smart and Sustainable Cities  
**DATE:** 1/25/2018  
**CC:** Dr. Mike Ellerbrock, Chair, AAEC Undergraduate Advisory Committee

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Per our recent exchange, you have requested that AAEC consider allowing AAEC 3324, Environmental and Sustainable Development Economics, to be included in the Environmental Policy and Planning (EPP) major and the Smart and Sustainable Cities (SSC) major electives in the School of Public and International Affairs.

AAEC 4314 has as a prerequisite AAEC 1005 or EC 2005, which are already included as a requirement for the EPP major. AAEC faculty offer AAEC 3324 on a regular basis (indeed, every semester). Faculty in AAEC concur that these courses should be included as part of your new proposed major.

Please let me know if you have any additional questions or require any further assistance with this matter. Thank you for your interest in collaborating with AAEC.



VirginiaTech

College of Science

**Department of Economics**

3016 Pamplin Hall (0316)  
880 West Campus Drive  
Blacksburg, Virginia 24061

August 17, 2017

Professor Anne Khademian  
Director, School of Public and International Affairs

Dear Dr. Khademian,

The Department of Economics supports the establishment of a new major in Smart and Sustainable Cities, which will be housed under a revised Public and Urban Affairs degree. We have examined the checksheet and approve the inclusion of the courses below:

ECON 2005 Principles of Economics  
ECON 2006 Principles of Economics  
ECON 4014 Environmental Economics  
ECON 3024 Economic Justice

We can accommodate students from this new major with no additional resources.

Warm Regards,

Sheryl Ball  
Professor and Associate Department Head

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