

Support for New AP Course Proposal:

Geographic Information Science & Technology

To: Dr. Lawrence Charap Director, AP Curriculum and Content Development

We, the undersigned organizations, write to urge The College Board to approve the American Association of Geographers' proposal for a new Advanced Placement course in Geographic Information Science & Technology (AP GIS&T).

The AP GIS&T course proposal was developed with a grant from the Geography Education National Implementation Project (GENIP), a consortium of geography organizations including the AAG, National Geographic Society, the National Council for Geographic Education, and the American Geographical Society. GENIP coordinates and supports the development of major national initiatives for geography education, including *Geography for Life: National Geography Standards* and AP Human Geography (APHG).

APHG has proven to be one of the most successful and fastest growing AP courses. In 2016, nearly 180,000 high school students took the APHG exam. We believe that an AP course in GIS&T would be equally successful, for the following reasons:

1) GIS&T has rapidly become a vibrant component of education, research, and innovation in the United States. As a widely accepted component of Science, Technology, Engineering, and Mathematics (STEM) education, GIS&T is a major field of research with a strong presence in U.S. higher education. Several hundred academic programs offer undergraduate and graduate-level coursework in GIS&T that prepares students for exciting and lucrative careers across a wide array of public and private sector organizations.

2) Access to geospatial technologies has never been greater. Geospatial technologies include Geographic Information Systems (GIS), the Global Positioning System (GPS), virtual globes, satellite imagery, geographic visualizations, and other locational technologies for the display, management, and analysis of spatial data. Mapping applications and locational technologies are ubiquitous on mobile devices, cars, and computers. Educators in schools enjoy free access to numerous web mapping and open source geospatial software platforms such as QGIS. Additionally, in 2014 the GIS company Esri announced a \$1 billion gift of cloud-based GIS software to support the Obama Administration's ConnectEd initiative. Over 3,000 schools have adopted free GIS software for classroom instruction under the Esri-ConnectEd program.

3) *The GIS&T industry is rapidly growing and evolving*. A recent study commissioned by Google estimates the value of the GIS&T industry's global services at \$150-270 billion annually.

The demand for a geospatially-trained workforce is forecasted to grow considerably in the future. Current U.S. Department of Labor projections call for "faster than average" or "much faster than average" growth in jobs for geographic information scientists, technicians and analysts, with upwards of 15,000 additional employees needed annually through 2022 and beyond.

4) *GIS&T is an ideal context for interdisciplinary learning.* An AP GIS&T course would have broad appeal and connect with high school subjects across the curriculum, such as Geography, Biology, History, Math, Social Studies, Computer Science, Environmental Studies, and Earth Science. AP GIS&T would dramatically advance the capacity of American schools to enhance the geographic literacy and proficiency of high school students.

We encourage college and university departments to agree to give college credit for AP GIS&T, and we also hope high schools across the nation will agree to offer this important learning opportunity.

Should you have any questions about this organizational sign-on letter of support for the AP GIS&T course proposal, please contact the Chair of the AP GIS&T Course Proposal Committee, Dr. Michael Solem, at msolem@aag.org or (202) 234-1450.

Sincerely,

American Association of Geographers (GENIP member) American Geographical Society (GENIP member) American Geosciences Institute American Society of Photogrammetry and Remote Sensing Caliper Cartography and Geographic Information Society Coalition of Geospatial Organizations Environmental Defense Fund Esri Geographic and Land Information Society GeoTech Center **GIS** Certification Institute Google International Association of Assessing Officers Management Association for Private Photogrammetric Surveyors National Council of Geographic Education (GENIP member) National Geographic Society (GENIP member) National Society of Professional Surveyors National States Geographic Information Council National Wildlife Federation North American Cartographic Information Society **Open Source Geospatial Foundation** Uber United States Geospatial Intelligence Foundation University Consortium for Geographic Information Science Urban and Regional Information Systems Association WiLDCOAST (Endorsing Organizations as of June 1, 2017)