

ALASKAVIEW 2021 - 2022



ALASKAVIEW 2021 - 2022 ACTIVITIES

AlaskaView updated two open access online introductory courses: 1) <u>GIS Foundations</u> and 2) <u>Remote Sensing of Wildfires</u> (<u>RSW</u>) geared toward students and professional beginners in geospatial field. This updated courses are running on **edX.org** (a global nonprofit online education and learning platform) since August 9, 2022. The courses are self-paced (consisting of video lectures, illustrations, interactive exercises, and quizzes).

**Goal:** Introduce GIS and remote sensing science and applications through natural resources and wildfire applications a problem that is worsening with climate warming and best addressed using geospatial science.



Map showing GIS Foundations learner locations.





GIS Foundations course about page

Course instructors surveying wildfire burn severity and shooting footage for the course.

This activity meets the objective 4 of the USGS/NLI "developing online educational materials that are immediately actionable by teachers or students with a minimal implementation curve".



Outreach: In 2022, we launched 'Alaska As Art' initiative:

- to increase awareness of satellite earth observation in education, research and societal well-being
- to increase awareness of the climatic and geologic processes that continue to shape the Alaska's dynamic landforms and the climate change effects

**Consortium Development**: Collaborated with UAF eCamups, UAF Institute of Agriculture, Natural Resources and Extension, edX.org, NSF Alaska EPSCoR program, and U.S. Fish and Wildlife Service.

## **ALASKAVIEW CONSORTIUM MEMBERSHIP**



Federal consortium members identified above do not receive funding from AmericaView.

AlaskaView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded by USGS grant agreement G18AP00077.

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## **BENEFITS TO ALASKAVIEW**

As a result of activities and support of AmericaView the State of Alaska have benefited as follows:

**Enrollment in edX courses:** Currently, we are offering 4 open access courses on edX platform. These courses have been benefitting Alaskans and global learners alike. The learners include Alaskan university students and faculty, state and tribal agencies workforce.

Total enrollment 18,339 (as of Dec. 2022) from 179 countries. Among the top 10 enrollment countries 5 are developing countries (India, Nigeria, Pakistan, Egypt, and Turkey).

GIS Foundations Learner Statistics: Female: 38%; Male: 61%.

Learners education level: 14% high school diploma or less; 51% college degree; 33% advanced degree.

**Student Support and Research**: Anushree Badola, Ph.D. student, received salary support for the edX course development as a coinstructor and for graduate research. She published a paper in the Int. J. of App. Ear. Obs. and Geoinformation; and presented at 2021 AGU Fall Meeting and at the 16<sup>th</sup> Int. Circumpolar Remote Sensing Symposium.

We offered \$1,000 fellowship to Lora May, a MS student, conducting research on snow evolution in Caribou-Poker Creeks Research Watershed, interior Alaska (with support from a NASA SnowEX project).

**Public Outreach**: In 2022 AKView participated in 2 events organized by University of Alaska Fairbanks:

- 2022 Arctic Fest held at Pioneer Park, Fairbanks, Alaska
- 2022 Arctic Research Open House; exhibit included: a poster on forest health research, Landsat board games, NASA posters, and USGS Landsat Science booklets.



Image as art displays at the 2022 Arctic Fest held at Pioneer Park, Fairbanks, Alaska. **Arctic Fest** is an annual festival that features the arts, sciences, and Indigenous cultural and knowledge systems, all focused on changing environment.



*The K-12 students and the general public participants of 2022 Arctic Research Open House.* 

Below pictures were taken during 2019 Science Potpourri event, EOD celebration, and ASRA student visit to EPSCoR VisSpace at University of Alaska Fairbanks campus.



These activities meet the objectives 2 and 4 of NLRSEORA 2018 grant: "establishing strategic partnerships to develop and deploy remote sensing applications through collaborations involving university research teams and K-12 schools" and "developing materials for an educational and training workshop".

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