



Incorporando Educación STEAM en las Escuelas de Euskadi



08.Jul - 09.Jul 2019

Cod. H11-19

Mod.:

Face-to-face

Edition

2019

Activity type

Summer course

Date

08.Jul - 09.Jul 2019

Location

Bizkaia Aretoa-UPV/EHU

Languages

Spanish Basque

Academic Validity

20 hours

Organising Committee



Description

Portable computer for the practical sessions is recommended

The Basque Government through the Dept. of Education has presented the STEAM Euskadi Education Strategy initiative (<http://steam.eus/es/estrategia-euskadi/>). This initiative is a challenge to the teaching community of the Basque Country for the incorporation of STEAM in the classrooms of Euskadi. STEAM are the initials of Science, Technology, Engineering, Arts and Mathematics.

This Summer Course is designed to successfully face this challenge to the teaching community. The course is based on the recent theories of computation and cognitive science.

The three fundamental pillars of this course are: curriculum, cognitive abilities of the student, and the computer as work environment. These three pillars are developed in the course through examples in which they encourage the development of transversal and disciplinary competences (Plan Heziberri 2020). In particular, transversal competences as communication, and learning to learn and think, and mathematical, scientific, technological and artistic disciplinary competences are developed.

The methodology of the course is based on practical examples. The participants of the course can experiment (BYOD - bringing your own device) with these examples with the purpose of developing the mentioned competences in a computing environment of online Scratch / Snap programming.

As a result of the course, participants will have an understanding of the world of STEAM that they can share with other teachers and students. They will also get a motivating and engaging view of STEAM topics that has the potential to make the classroom an interesting place for exploration and learning for students.

Objectives

Promote the training of teachers and future teachers in the development of STEAM Education in Euskadi.

Describe new curricular areas that contribute to the development of STEAM Education in the classrooms of Euskadi.

Promote the use of technological tools for programming and computing, eLearning and communication in faculty and students.

Promote actions for dissemination and promotion of scientific and technological culture in the modern citizenship of the Basque Industry 4.0 society. for the generation of talent and qualified professionals.

Program

08-07-2019

08:45 - 09:00	Entrega de documentación
09:00 - 09:15	Inauguración del Curso y Presentación de las actividades del Día 1
09:15 - 10:30	“Conferencia 1: Educación STEAM en el sistema educativo de Euskadi / Hitzaldia 1: STEAM hezkuntza Euskadiko hezkuntza sisteman. “ Urtza Garay Ruiz UPV/EHU - Profesora Agregada Ainara Romero Andonegui UPV/EHU - Profesor/a Adjunto
10:30 - 11:45	“Conferencia 2: Implementar con éxito la Educación STEAM en nuestras aulas / Hitzaldia 2: STEAM Hezkuntza arrakastaz txertatzen gure ikasgelan “ Juan Carlos Olabe Basogain Christian Brothers University - Full Professor
11:45 - 12:15	Break
12:15 - 13:30	“Sesión Práctica Día-1: Creando Experiencias para enseñar y aprender STEAM con Scratch / Saio praktikoa 1-Eguna: STEAM ikas eta irakasteko esperientziak sortzen Scratch-ekin“ Miguel Ángel Olabe Basogain UPV/EHU - Profesor Titular de Universidad Juan Carlos Olabe Basogain Christian Brothers University - Full Professor
13:30 - 13:45	Synthesis

09-07-2019

09:00 - 09:15	Presentación de las actividades del Día 2
09:15 - 10:30	“Conferencia 3: Cómo prepararnos para ser docentes en Educación STEAM / Hitzaldia 3: Nola prestatu STEAM Hezkuntzako irakasle izateko.“ Arantzazu López de la Serna UPV/EHU - Profesora Adjunto Eneko Tejada Garitano UPV/EHU - Profesor Adjunto
10:30 - 11:45	“Conferencia 4: Resolviendo problemas de matemáticas y ciencias en el mundo real con una mente STEAM / Hitzaldia 4: Mundu errealeko matematika eta zientzia arazoak konpontzen, STEAM pentsamendutik “ Xabier Basogain Olabe UPV/EHU - Profesor Titular
11:45 - 12:15	Break
12:15 - 13:30	“Sesión Práctica Día-2: Creando Experiencias para enseñar y aprender STEAM con Scratch / Saio praktikoa 2. Eguna: STEAM ikas eta irakasteko esperientziak sortzen Scratch-ekin“ Miguel Ángel Olabe Basogain UPV/EHU - Profesor Titular Juan Carlos Olabe Basogain Christian Brothers University - Full Professor

Directed by



Xabier Basogain Olabe

Universidad del País Vasco / Euskal Herriko Unibertsitatea, Subdirector de Relaciones con la Empresa

Full Professor of the University of the Basque Country - Euskal Herriko Unibertsitatea. Telecommunications Engineer from the Polytechnic University of Madrid, and Doctor of Telecommunication Engineering from the University of the Basque Country - Euskal Herriko Unibertsitatea. Member of the Systems Engineering and Automation Department of the School of Engineering of Vitoria-Gasteiz. He has taught courses in digital systems, microprocessors, digital control, systems engineering, modeling and simulation of discrete events, machine learning, and synchronous collaboration tools in education. His research activities include the areas of: a) soft computing and cognitive science for STEAM; b) learning and teaching technologies applied to online education; c) virtual and augmented reality with mobile technologies. ORCID ID: 0000-0002-6672-6897

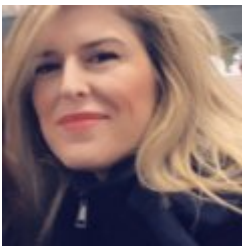
Teachers



Urtza Garay Ruiz

UPV/EHU , Directora de Innovación Metodológica

Urtza Garay Ruiz has a PhD from the University of the Basque Country and a postgraduate degree in Multilingual Education from the University of Barcelona. She is a professor and Director of Methodological Innovation at the University of the Basque Country-Euskal Herriko Unibertsitatea. He is also a member of the consolidated research group of the “Weblearner” on technology and education. He has participated in competitive research projects of the Ministry of Education and Science, the Basque Government and UPV / EHU. In addition to coordinating and participating in Teaching Innovation Projects and has published teaching material for Primary, Secondary and University Education. His lines of research are MOOCs, PLE, RA, Educational Technology and Multilingual Education. She has made contributions to various national and international conferences and has published chapters in books and articles in educational research journals of high international impact.



Arantzazu López de la Serna

UPV/EHU

Associate Professor of the University of the Basque Country - Euskal Herriko Unibertsitatea. Degree in Pedagogia from the University of Deusto. Degree in teaching from de University of Mondragon and Doctor from the University of the Basque Country - Euskal Herriko Unibertsitatea. Member of the Department of Didactics and School Organization. (UPV/EHU) He has taught courses in Innovation and technology, Prevention in education, Gender and technology. His research activities include the areas of: a) Educational innovation; b) Gender and technology; c) Prevention and risk reduction in educational contexts; d) MOOC and SPOOC courses. Place: Faculty of Education of Bilbao, UPV / EHU ORCID ID: 0000-0002-9297-8641



Juan Carlos Olabe Basogain

Juan Carlos Olabe is professor of Electrical and Computer Engineering at Christian Brothers University (CBU), in Memphis TN., USA. He holds a PhD in Telecommunications Engineering by the Polytechnic University of Madrid. He has taught courses in Electromagnetic Field Theory, Data Communications, Data Structures, and Data Base Design. His research activities include the areas of: a) computer network design; b) digital design; c) computational thinking and cognitive processes; and d) learning and teaching technologies applied to online education.



Miguel Ángel Olabe Basogain

Professor at the University of the Basque Country - Euskal Herriko Unibertsitatea. Doctor Industrial Engineer from the University of the Basque Country, and member of the Communications Engineering Department of the School of Engineering of Bilbao. He has taught courses in computer architecture, programming, modeling and simulation of networks, multimedia services, and creation and distribution of multimedia content in education. His research activities include the areas of: a) Soft Computing and cognitive science for STEM; and b) learning and teaching technologies applied to online education. Place: School of Engineering of Bilbao, EHU Office: 3A19 Telephone: 34 946014211 E-mail: miguelangel.olabe@ehu.eus



Ainara Romero Andonegui

Euskal Herriko Unibertsitatea, UPV/EHU

Associate Professor of the University of the Basque Country - Euskal Herriko Unibertsitatea. Degree in Psychology from the University of Deusto and Doctor in Education from the University of the Basque Country - Euskal Herriko Unibertsitatea. Member of the Department of Didactics and School Organization. She has taught courses in digital competence, educational technology and active methodologies. Her research activities include the areas of: a) Learning and Knowledge Technologies b) Personal Learning Environment c) Massive Open Online Course eta d) Oral and written language acquisition. Place: Faculty of Education of Bilbao, UPV / EHU ORCID ID: <https://orcid.org/0000-0002-0132-9508>



Eneko Tejada Garitano

Associate Professor of the University of the Basque Country - Euskal Herriko Unibertsitatea. Degree in Psychopedagogy from the University of Deusto and Doctor from the University of the Basque Country - Euskal Herriko Unibertsitatea. Member of the Department of Didactics and School Organization. He has taught courses in digital competence, educational technology and active methodologies. His research activities include the areas of: a) long life learning; b) Creation of personal learning environments; c) virtual and augmented reality with mobile technologies; d) creation of Massive Open Online Course. Place: Faculty of Education of Bilbao, UPV / EHU ORCID ID: 0000-0002-6013-222X

Registration fees

REGISTRATION	UNTIL 31-05-2019	UNTIL 08-07-2019
GENERAL	60,00 EUR	70,00 EUR
REDUCED FEE	35,00 EUR	-
REGISTRATION EXEMPTIONS	20,00 EUR	20,00 EUR
REDUCCIÓN APRENDER PARA ENSEÑAR	35,00 EUR	46,00 EUR
SPECIAL FEES	35,00 EUR	-
AEK members	52,50 EUR	-
ELKAR fellow members	52,50 EUR	-
Euskaltegis IKA	52,50 EUR	-

Place

Bizkaia Aretoa-UPV/EHU

Avenida Abandoibarra, 3. 48009- Bilbao

Bizkaia