

## DIVISION C / COMMISSION 1 / WORKING GROUP NETWORK FOR ASTRONOMY SCHOOL EDUCATION - NASE

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### TRIENNIAL REPORT 2015-2018

#### 1. Introduction

The Network for Astronomy School Education, NASE, organizes courses for secondary and primary school teachers in different continents. The courses are given in the language of the country, and all the material is translated. A small group of two or three members of NASE visits the country and teaches the course in cooperation with local IAU members in the country (if there are any) and any teachers interested in astronomy. These people form a new local NASE working group and they repeat the course at least once per year. Of course, they are invited to cooperate with NASE in other courses and in the creation of materials. The local NASE working group cooperates with local institutions, e.g. the Ministry of Education, Universities and/or Observatories, Teachers Associations. The educational resources and course materials are in several languages: English, Spanish, Portuguese, Chinese Mandarin, Romanian, Indonesian, French and we are translating into other languages. The basic course is the same in all countries, except for the respective changes on latitude and longitude. Every course includes a special sessions on Cultural Astronomy and Astronomy in the City in order to showcase the uniqueness of each site. This part is prepared by local astronomers in cooperation with archeastronomy members of the IAU. Other monographic courses were created. We have courses of 4, 3 or 2 days related to more particular topics. Further information is available at <http://www.naseprogram.org>.

##### 1.1. 2015-2017 Organized Courses

This WG organized 35 courses in the reported period 2015-2017 in 4 different continents: Africa, America, Asia and Europa:

- 104 Santiago de Chile (Chile) - January 8-11, 2018
- 103 Tunis (Tunisia) - November 14-17, 2017
- 102 Shizuishan (China) - November 2-3, 2017
- 101 Cluj (Rumania) - October 30-4, 2017
- 100 Guizhou (China) - October 16-20, 2017
- 99 Managua (Nicaragua) - July 24-26, 2017
- 98 Guatemala (Guatemala) - June 22-24, 2017
- 97 Jujuy (Argentina) - June 8-9, 2017
- 96 Foz de Iguacu (Brasil) - May 21-26, 2017
- 95 Salta (Argentina) - April 24-27, 2017
- 94 Tena (Ecuador) - March 6-10, 2017
- 93 San Luis Potosí (México) - October 28-30, 2016

92 Medellín (Colombia) - October 13-14, 2016  
 91 Bogotá (Colombia) - October 12-14, 2016  
 90 Habana (Cuba) - September 27-30, 2016  
 89 Concordia (Argentina) - September 12-14, 2016  
 88 Jujuy (Argentina) - September 5-7, 2016  
 87 Cluj (Rumania) - September 5-8, 2016  
 86 Tegucigalpa (Honduras) - August 22-25, 2016  
 85 Villarrica (Paraguay) - August 13-27, 2016  
 84 Mendoza (Argentina) - August 10-12, 2016  
 83 Pamplona (Spain) - July 26-29, 2016  
 82 Malang (Indonesia) - July 25-28, 2016  
 81 Estel (Nicaragua) - July 12-15, 2016  
 80 Guatemala (Guatemala) - June 23-25, 2016  
 79 Matehuala (México) - June 6-9, 2016  
 78 San Luis Potosí (México) - May 31 - June 3, 2016  
 77 Macas (Ecuador) - April 4-8, 2016  
 76 Tegucigalpa (Honduras) - Feb. 24 - May 3, 2016  
 75 Rosario (Uruguay) - December 1-3, 2015  
 74 Concordia (Argentina) - November 18-20, 2015  
 73 Salta (Argentina) - November 2-5, 2015  
 72 Bucaramanga (Colombia) - October 11-14, 2015  
 71 Bogotá (Colombia) - October 5-7, 2015  
 70 Tegucigalpa (Honduras) - August 24-27, 2015  
 69 Honolulu (Hawaii) - August 1-2, 2015

(for a full list of courses see NASE website)

The WG also organized several courses in cooperation: three workshops in Brazil and one in Argentina in 2017.

### 1.2. *NASE publications*

The publication of the books which support the courses is also a big goal, up to the moment of this report, the published material is:

- 14 steps to the Universe 2017, Ed. Rosa M. Ros and M. Kay Hemenway, 2nd edition
- 14 pasos hacia el Universo 2017, Ed. Rosa M. Ros and Beatriz García, 2nd edición
- Rosa M. Ros and Beatriz García, Sun and eclipses, 2017 (Ed. by CONICET, Argentina, in Spanish and English)

## 2. Closing remarks

NASE obtained certification in the IRAM-ISO 29990-2013 standards in Argentina in 2016, which concern "Learning services for non-formal education and training and basic requirements for learning service providers (LSP), in order to achieve compliance with certain goals and achieve concrete results that comply with an applicable standard worldwide. This certification must be obtained for each country. In this way Argentina is opening a way to the establishment of certification in other countries, although NASE can not establish this certification for all member countries because of the financial investment that this represents. All countries that are part of NASE are governed by the

same dynamics and structures, but to certify the quality standards, the chair of NASE has decided to certify first in the country where the program NASE is more widespread and where they have developed more courses (19 courses in the past 7 years), namely Argentina. In spite of that, the documentation can be very easily extended to other countries after changing a few specific details, and now is available in English, thanks to help from NASE-Honduras.

Rosa M. Ros  
*chair of Working Group*