ISU’s Credo

"The International Space University is an institution founded on the vision of a peaceful, prosperous and boundless future through the study, exploration and development of space for the benefit of all humanity."

ISU Founders: Peter Diamandis, Todd B. Hawley, Robert B. Richards

ISU’s Mission

- Develop the future leaders of the space community
- Nurture the exchange of knowledge and ideas on the challenging issues related to space in a neutral forum
- Impart the critical skills essential to future space initiatives

ISU’s Concept

International, Interdisciplinary, Intercultural
New Space initiatives are now reaching high public attention - strengthened by the US Commercial Space Act of 2015 and subsequently followed by similar intentions in other countries. This will allow us, as a Chinese saying expresses, ‘to live in interesting times’ to its fullest. The successful demonstration of reusable rockets, plans on asteroid mining and a plentitude of new space applications will raise the interest in space activities considerably.

Also space agencies, all over the world, are developing the post-International Space Station era. Plans for Cis-lunar projects and a base on the Moon are being explored. Those will lead, in turn, to a new series of activities such as In Situ Resource Utilization and other critical technologies to be developed for the major space step of humankind of this century - a first human base on Mars.

The combination of both strivings is providing a great field of action for our present and future alumni, both at government level as well as for entrepreneurial oriented endeavors.

It is therefore the right moment to join the space sector, and ISU is the best starting place to do so.

In this brochure you will find a number of offerings and programs for different target groups. We are sure one or more will be in line with your aspirations.

Space enthusiast, do not hesitate and join one of the ISU programs, allowing you to take part afterwards, as alumnus of the strong ISU network, in this fascinating New Space world!

WALTER PEETERS
In the past 30 years ISU has trained international space leaders and started numerous initiatives to connect and develop a strong worldwide alumni network. Take a look at the milestones of ISU’s history in the timeline.

**30 YEARS OF ISU**

**1987 – ISU FOUNDING CONFERENCE AT MIT USAT, LED BY TODD HAWLEY, PETER DIAMANDIS AND DOMINIC RISBOURD**

**1987 – ARTHUR C. CLARKE, FIRST ISU CHANCELLOR**

**1987 – FIRST SUMMER SESSION PROGRAM (NOW SPACE STUDIES PROGRAM) AT MIT**

**1988 – FIRST SPACE STUDIES CLASS IN STRASBOURG, FRANCE**

**1990 – GROUNDBREAKING FOR ISU CENTRAL CAMPUS**

**1993 – STRASBOURG, FRANCE. SELECTED AS LOCATION FOR THE ISU CENTRAL CAMPUS**

**1994 – FIRST MASTER OF SPACE STUDIES CLASS OFFERED**

**2000 – GROUNDBREAKING FOR ISU CENTRAL CAMPUS**

**2001 – FIRST ISU EXECUTIVE MBA CLASS**

**2004 – OFFICIAL RECOGNITION BY THE FRENCH MINISTRY OF EDUCATION**

**2007 – FIRST EXECUTIVE MBA CLASS**

**2008 – FIRST ISU EXECUTIVE MBA CLASS**

**2009 – FIRST MASTER OF SPACE STUDIES PROGRAM**

**2010 – 20TH ANNIVERSARY, MASTER OF SPACE STUDIES PROGRAM**

**2011 – FIRST SOUTHERN HEMISPHERE - SPACE STUDIES PROGRAM IN ADELAIDE, AUSTRALIA**

**2014 – FIRST MASTER OF SPACE STUDIES THESES YEAR**

**2015 – 20TH ANNIVERSARY, MASTER OF SPACE STUDIES PROGRAM**

**2015 – DR. BUZZ ALCINDOR, THIRD ISU CHANCELLOR**

**2016 – ENHANCEMENT OF RESEARCH AT ISU**

**THEY DID ISU!**

**People of ISU from 1987 to 2017. Randomly and just a few...**

**ASTRONAUT**
- James Newman, SSP90
- Sayeon Yi, SSP09
- Jessica Meir, MSS00

**ENTREPRENEUR**
- Peter Platzer, Spire, MSS12
- Taber MacCallum, World View Enterprises, SSP98
- Robbie Schingler, Planet Labs, MSS01
- Claudia Kessler, HE Space, SSP93
- Eric Tilenius, BlueTalon, SSP90

**BUSINESS**
- Abimbola Alake, MSS01 / MBA12
- Gongling Sun, SSP98
- Alain Wagner, MSS98
- Bijal Thakore, SSP05 / MSM06
- Frederic Nordlund, SSP99

**SCIENTIST**
- Lin Chambers, SSP89

**ARCHITECT**
- Sean Nolan, SSP88

**ENGINEERING**
- Michel van Peit, SSP00
- Yuki Takahashi, SSP03
- Silvio Sandrone, MSS98
- Angie Bukley, SSP93

**LAW**
- Danila Genta, MSS97

**MEDICINE**
- Farhan M. Asrar, SSP10

**EDUCATION**
- Juan Fernandez Diaz, SSP06

**BUSINESS**
- Peter Platzer, Spire, MSS12

**ENTREPRENEUR**
- Peter Platzer, Spire, MSS12

**ASTRONAUT**
- James Newman, SSP90
ISU specializes in the education of post-graduates and professionals to prepare them for work in an exciting, progressive sector – Space Future leaders and influential thinkers need new skills and a global perspective to prepare them to meet the challenges of a constantly evolving world.

Headquartered in Strasbourg, France, ISU provides an incomparable opportunity for an international, interdisciplinary and intercultural education. Students and teachers come from around the world, with experience in many fields related to the space sector, both technical – physical and life sciences, technology and engineering, applications, medicine – and non-technical – law, economics, business, humanities, art, policy, philosophy, history.

Living and working in a unique international environment, sharing the daily experience of different cultural approaches to common challenges and working towards a collective goal using diverse methods – an intense and unforgettable experience.

A singular opportunity for interacting with some of the world’s space experts and leaders, and for building lasting relationships with dedicated professionals and fellow students, brought together by a common interest in the exploration and utilization of space.

ISU is the Center of a Worldwide Network:
- more than 4200 alumni from over 100 countries
- several hundred faculty and lecturers drawn from around the globe
- Space Studies Program host institutions in different international cities
- Master of Space Studies Program internship host organizations worldwide
- governing bodies consisting of leading international space representatives
- sponsors from around the world, including space agencies, industry, non-governmental organizations, foundations, and individuals

ISU is Involved with Several International and National Organizations:
- Observer status at COPUOS (the Committee on the Peaceful Uses of Outer Space of the United Nations Office for Outer Space Affairs)
- Cooperative agreements with CNES (French National Space Agency), CSA (Canadian Space Agency), CASC (China Aerospace Science and Technology Corporation), CSF (Chinese Space Foundation), DLR (German National Space Agency), ESA (European Space Agency), JAXA (Japanese Aerospace Exploration Agency), NASA (National Aeronautics and Space Administration)
- Member of the International Astronautical Federation (IAF)
- Focal point for space education matters at SAF (the Space Agency Forum)
- Cooperative agreements with organizations devoted to furthering public understanding and knowledge about space, such as the US National Space Society, The Planetary Society, the AAS and the AAF in France

“ISU taught me how to work and live with people from different disciplines and cultures in an international context, vital for today’s business in a globalized world, and the value of cultural diversity as key asset for a better future within the politically challenging environment we live in today.”

Barbara Imhof, Architect and Researcher at LIQUIFER, MS97

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Barbara Imhof, Architect and Researcher at LIQUIFER, MS97

“MY LIFE CAN BE CLEARLY DIVIDED BETWEEN BEFORE AND AFTER ISU: ISU WAS A TURNING POINT IN MY LIFE THAT CREATED A WORLD OF POSSIBILITIES IN FRONT OF ME.”

Carmen Felix, Earth and Space Information System Manager at 2A Systems and Adjunct at Washington University, USA
The ISU Master of Space Studies Program (MSS) is intended for individuals seeking professional development, further academic study, or both, through a one- or two-year graduate degree program. For experienced professionals, the MSS supports career advancement, a shift of career within the space sector or a career move into the space sector. For students who wish to make their careers in space, the MSS supports entry into the sector through access to space agencies, space commerce, space research and related actors.

**THE MSS AIMS ARE TO:**

- Provide an interdisciplinary, international, intercultural (3Is) Master’s course for highly-motivated students from a diverse range of educational, cultural and professional backgrounds.
- Deliver high-quality 3Is education in the space domain and associated areas which both enhances students’ knowledge, skills and effectiveness and offers them the opportunity to achieve their full potential.
- Maintain, promote and build productive links with the global space community, including ISU alumni, and use these to provide a contemporary ‘real-world’ dimension to the program.
- Produce graduates capable of contributing effectively and holding responsible positions within the global space sector.

In MSS 2016, students came from 21 different countries. Their average age was 29 and 34% held degrees at Master’s level or higher.

**The MSS is structured as a one- or two-year program. The first year is essentially a taught one and is delivered primarily at the ISU Central Campus in Strasbourg. Some students will take only this year and graduate with a Master of Space Studies. During the first year, students who perform at an appropriate level may apply for the second ‘thesis year’ in which they perform a single extended project or scholarly activity, either at ISU, or an appropriate host institution. These students will graduate with a Master of Science in Space Studies with Thesis.”**

- **MSS YEAR A**
  - MSS Year A is an intensive year worth 75 ECTS. It consists of three types of module:
    - **CORE MODULES** are mandatory taught modules designed primarily to deliver academic program content and are broad and interdisciplinary in their scope.
      - M1-ITS Introduction to Space (10 ECTS)
      - M2-ISS Interdisciplinary Space Studies (20 ECTS)
    - **PRACTICE MODULES** are mandatory taught modules designed primarily to deliver academic program content and are broad and interdisciplinary in their scope.
      - M3-TPR Team Project (12 ECTS)
      - M4-PR Individual Project (12 ECTS)
      - M5-INT Internship (15 ECTS)
    - **ELECTIVE MODULES** are shorter, optional taught modules designed to deliver academic program content. They are narrow and more discipline-focused than core modules. Students must take two elective modules. Possible electives include:
      - M6-PRO Space Propulsion (3 ECTS)
      - M7-HSE Human Space Exploration and Habitability Design (3 ECTS)
      - M8-SSD Interstellar Studies (3 ECTS)
      - M9-SED Space Systems Engineering and Design (3 ECTS)
      - M10-ABL Astrobiology (3 ECTS)
      - M11-EVM Earned Value Management (3 ECTS)
      - M12-ISE New Space and Entrepreneurship (3 ECTS)

Not all elective modules will necessarily be offered/run each academic year. This will depend on both resourcing and uptake.

MSS Year A can be completed in full-time mode from September of one year to September of the following year or in part-time mode by completing one or more modules per year within a maximum of seven years.
**MSS YEAR A CORE AND PRACTICE MODULE AIMS**

1. To introduce students to the fundamental MSS disciplines and build a firm foundation for interdisciplinary study in subsequent modules.
2. To develop students’ transferable skills, including intercultural awareness, time management, teamwork, written communication and oral presentations.

**MSS YEAR B (OPTIONAL)**

MSS Year B consists of a single module:
- **M34-THP Thesis Project (45 ECTS)**

Taking MSS Year B is not an automatic right of all students taking MSS Year A. Eligibility for MSS Year B is assessed during Year A. Subject also to a suitable Thesis Project being approved, successful candidates may then transfer to the two-year program. Thesis Projects may take place at ISU’s Strasbourg Central Campus or at other institutions/organizations as appropriate.

MSS Year B can be completed in full-time mode over seven months or in part-time mode over a longer period within a maximum of seven years from the start of MSS Year A.

**THE AIMS OF M34-THP ARE:**
1. To enhance students’ individual knowledge in a given area of intellectual enquiry significantly above its initial level.
2. To develop students’ individual research, design, development, problem solving, communication, organizational and project management skills.
3. To allow students to apply the knowledge gained in the first year of the MSS and apply relevant principles in a multidisciplinary context.
4. To refine students’ communication skills in a variety of forms, e.g. oral presentations, written reports, graphically, etc.

**LANGUAGE CLASSES**

Before the start of the MSS program, students are given the opportunity to attend a week of intensive French classes. We highly recommend taking advantage of these classes in order to obtain a good basic level of French early on, before the program work intensifies. These French classes are continued during M1-ITS at two levels: Beginner and Intermediate. English classes are also offered during Module 1 to those students wishing to improve their English language skills in order to follow the program.

**PROFESSIONAL VISITS**

During the academic year, students have the opportunity to visit significant space-related enterprises and activities in Europe. Previously, visits have been made to Airbus Defence and Space, Snecma, SES, European Space Operations Centre, European Space Agency HQ, European Astronaut Centre, CNES (French Space Agency), EUMETSAT, SpaceX, Institute for Space Research and DLR (German Space Agency). Outside of the official MSS programme some students have organized their own visits to the ESA launch site in French Guiana, the European Space Technology Centre in The Netherlands and space-related facilities in Russia.

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**ISU taught me the fundamentals of space exploration. The experiences I had and the connections I made while there were instrumental in paving the way for my career in space medicine, and in forming some lifelong friendships along the way! I wholeheartedly recommend ISU for anyone wishing to embark upon a career within the space sector.”**

**Shweta Pandya**, Medical Doctor at Medical Practice, MSS alumnus
Full Professor, Space Engineering
Dr Chris Welch is a Vice President of International Astronautical Federation and a member of European Commission H2020 Space Advisory Committee. His research interests are in space propulsion, microgravity science and planetary exploration. He has extensive media experience and a significant track record in both space education and outreach and higher education, receiving the 2009 Sir Arthur Clarke Award for Space Education and 2015 IAF Distinguished Service Award. Dr Welch is Vice-President of the British Interplanetary Society, of which he is a fellow, and is also a fellow of the Royal Aeronautical Society and Royal Astronomical Society. He sits on a number of boards including the Arts Catalyst and the Initiative for Interstellar Studies. He has a PhD in Spacecraft Engineering from Cranfield University, an MSC in Experimental Space Physics (University of Leicester) and a BSc in Physics (Cranfield University). He has published more than 90 papers in journals, book chapters and conferences.

Associate Professor, Space Sciences
Dr. Jean-Jacques Favier has been Deputy Director for Space Technology and Deputy Director for Advanced Concepts and Strategy at CNES and Director of the Solidification Laboratory at the French Atomic Energy Commission (CEA). He was selected as French Astronaut Candidate in 1985, and then selected again by NASA as Payload Specialist in 1992, firstly alternate on the STS 65/ML2 shuttle mission. During the flight he was crew interface coordinator at control center. He then flew on STS 78/79 Columbia mission in June/July 1996, logging 17 days in orbit. Dr. Jean-Jacques Favier is an engineer from the Institut Polytechnique de Grenoble, earned a PhD in Metallurgy from the Ecole des Mines de Paris and a PhD in Solid State Physics from the University of Grenoble. As a scientist with the Commissionat l’Energie Atomic (French Atomic Energy Commission) from 1976 to 1999, he published more than 130 publications.

Associate Professor, Space Sciences

Full Professor, Space Business, President

Associate Professor, Space Economics and Policy
PhD in Economics (The Economics of the European Space Industry, University of York, UK; MSc in Economics, University of Birmingham, UK with focus on macroeconomic policies and the European Central Bank; BA in Economics, American College of Greece, Athens, Greece. Formerly employed at the University of York Economics Department and Nottingham University Business School (Industrial Economics). Associate member, Strasbourg University Office of the European Astronaut Centre in Cologne. Author of the book, “Space Marketing” (Kluwer, 2000) and various publications in the field of contract development, incentive contracting, cost management and financing of space activities. Advisor to various organizations and companies on space tourism development. Director of the International Institute of Space Commerce (IISC), a space think tank based in the Isle of Man. Present research interest in space commercialization and personal spaceflight.

Assistant Professor, Space Applications
Dr Barnaby Osborne received his BEng and PhD from the University of Queensland in Mechanical and Space Engineering and Microgravity Physics. His experience ranges from work as a testing and instrumentation engineer for an engineering firm specialising in failure analysis and design optimisation through to academic and research roles at Kingston University (UK) and the University of New South Wales (Australia). He is currently an Associate Professor and Thales Alenia Space Chair in Small Satellite Systems at UNSW and a visiting professor at the International Space University. His current activities primarily involve developing microgravity payloads, CubeSats and CubeSat subsystems for a number of active missions. He has research interests in microgravity physics and microgravity facility design and cubesats. Dr Osborne has published over 40 papers in peer reviewed journals, book chapters and conferences.

Faculty in Full-Time Residence

Director, Research Programs
Professor, Space Life Sciences
Professor, Space Economics and Policy
Associate Professor, Space Sciences
Associate Professor, Space Economics and Policy
Assistant Professor, Space Applications

Director, Master’s Program
Professor, Space Engineering
Professor, Space Economics and Policy
Associate Professor, Space Economics and Policy
Assistant Professor, Space Applications

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Visiting Professor, Space Applications
Dr Barnaby Osborne received his BEng and PhD from the University of Queensland in Mechanical and Space Engineering and Microgravity Physics. His experience ranges from work as a testing and instrumentation engineer for an engineering firm specialising in failure analysis and design optimisation through to academic and research roles at Kingston University (UK) and the University of New South Wales (Australia). He is currently an Associate Professor and Thales Alenia Space Chair in Small Satellite Systems at UNSW and a visiting professor at the International Space University. His current activities primarily involve developing microgravity payloads, CubeSats and CubeSat subsystems for a number of active missions. He has research interests in microgravity physics and microgravity facility design and cubesats. Dr Osborne has published over 40 papers in peer reviewed journals, book chapters and conferences.

Visiting Prof., Human Performance in Space
Dr Volker Damann has been the Head of the Space Medicine Office of the European Space Agency (ESA) at the European Astronaut Centre in Cologne (EAC), Germany and has been seconded by ESA to ISU early 2016. He served as a flight surgeon and supported several Space Shuttle and MIR missions. Under his leadership a dedicated medical mission control facility was established at the EAC and a team of physicians, biomedical engineers, sport scientists, psychologists, IT experts and physiotherapists was setup to support the ESA astronauts on their long-duration space missions. In 2008/2009 he was responsible for the medical and psychological selection of a new class of ESA astronauts. He is a fellow of the Aerospace Medical Association and serves on its executive committee.

Lecturer, Global Navigation Satellite System Application Geodetic engineer and future Ph.D researcher at the Open University, UK in space innovation for future extra-terrestrial settlements. Prior to this, Danijela worked at Republic Geodetic Authority of Serbia, maintaining the cadastre land management, she was attached to research and construction of railway and roadway in France. Familiar with ISU since 2012 when she was a Master student and thereupon Teaching Associate. Currently is working as a lecturer of remote sensing, focusing on GNSS applications. Research interest in Earth’s civil engineering technologies applied onto extraterrestrial construction process.
Recent lecturers have included:

- Philippe Achilleas*, IDEST - Université de Paris Sud, France
- Audrey Allison**, The Boeing Company, USA
- Jacques Arnold**, CNES - Headquarters, France
- Anoule Banon, Artist, France
- Nelly Ben Hayoun, Nelly Ben Hayoun Studio Ltd., United Kingdom
- Hagen Betzwieser, We Colourised the Moon, Germany
- Torsten Bieler, ESA - ESTEC, The Netherlands
- Chris Bridges, University of Surrey, United Kingdom
- Andrew Browne, Q3b Networks, The Netherlands
- Remo Charles, ESA - European Astronaut Centre, Germany
- Francis Chiza**, NASA, Nigeria
- Stephen Clandillon, SERTIT - Service Régional de Traitement de l’image et de Télédétection, France
- Malcolm Clau, Kingston University, United Kingdom
- Philippe Deier, CNES - Headquarters, France
- Bernard Comet, MEDES, France
- John Connolly**, International Space University, France
- Ian Crawford, Birbeck College, United Kingdom
- Jim Dator*, Hawaii Research Center for Future Studies, USA
- John Davies, FBMC, The Initiative for Interstellar Studies, United Kingdom
- Xavier De Kestelier , Fosters + Partners, United Kingdom
- Emmanuel Detis**, ESF - European Science Foundation, France
- Alberto Donadoni, Rhea Group, The Netherlands
- Adrian Ellingsfeld, Free-lance, Germany
- Fabian Ellingsfeld, PRICE Systems Ltd. Deutschland, Germany
- Peter Elson, JST Specialty Limited, United Kingdom
- Stuart Evans, Airbus Defence and Space, United Kingdom
- Reinhold Ewold*, ESA - European Astronaut Centre, Germany
- Daniel Faber, Deep Space Industries, The Netherlands
- Benoît Famaey, Observatoire de Strasbourg, France
- Stefano Fiori***, ESA - ESTEC, The Netherlands
- Anthony Freeman, NASA Jet Propulsion Laboratory, USA
- Christina Giannopapa, ESA - Headquarters, France
- Andrea Gini, Space Safety Magazine, The Netherlands
- Bertrand Goldman, Observatoire de Strasbourg, France
- Adriano Golemis, Free-lance, Greece
- Marco Guglielmi, ESA - ESTEC, The Netherlands
- Vincent Guillaud, Airbus Defence and Space, France
- Sam Harrison, Free-lance, United Kingdom
- Andreas Hein, Icarus Interstellar, United Kingdom
- Jason Held, Saber Astronautics, Australia
- Georg Herdrich, University of Stuttgart, Germany
- Jutta Huebner, ESA - ESOC, Germany
- Abigail Hutty, Airbus Defence and Space, United Kingdom
- Barbara Imhof, Liqueur, Austria
- Marcello Ingassista**, Free-lance Trainer and Consultant, Italy
- Adil Rahman Jafry*, Chandah Space Technologies, USA
- Egbert Jan van der Veen, OHB System GmbH, Germany
- Rodger Jehn*, ESA - ESOC, Germany
- Virendra Jha, Canadian Space Agency (Ret.), Canada
- Gilbert Kirkham, US Embassy France, France
- Otto Koudelka**, Technical University Graz, Austria
- Jörg Kreisel, Jörg Kreisel International Consultant (JIKI), Germany
- Priti Kull, Kokenarae OU, Estonia
- Rene Lauffer*, Baylor University, USA
- John Logan*, Space Policy Institute George Washington University, USA
- Kelvin Long, Stellar Engines Ltd., United Kingdom
- Zhouyou Li, International Space University, France
- Bernd Madauss*, Project Management Team Madauss, Germany
- Adriano Golemis, Free-lance, Greece
- Marco Guglielmi, ESA - ESTEC, The Netherlands
- Vincent Guillaud, Airbus Defence and Space, France
- Sam Harrison, Free-lance, United Kingdom
- Andreas Hein, Icarus Interstellar, United Kingdom
- Jason Held, Saber Astronautics, Australia
- Georg Herdrich, University of Stuttgart, Germany
- Sias Mostert, Space Commercial Services - Aerospace Group, South Africa
- Joseph A. Nuth, III, NASA Goddard Space Flight Center, USA
- Minna Nygren, Free-lance, United Kingdom
- Sumanta Pal, Triangle Venture Capital Group GmbH, Germany
- Bob Parkinson**, Astrum Ltd. (Ret.), United Kingdom
- Daniela Petrova, Addenbrooke’s Hospital, United Kingdom
- Serge Piattard, ESP, France
- Stéphanie Raffestin, ESA - ESTEC, The Netherlands
- Laurence Roche Nye , Université Paris Ouest Nanterre La Défense, France
- Nahun Romero Zamora, Artist, Mexico
- Claude Rousseau**, Northern Sky Research, France
- Silvio Sandrone, Airbus Defence and Space, France
- Pierre Scheidecker, Animateur Sciences et Techniques, France
- Jörg Schroeter, ESA - ESTEC, The Netherlands
- Antonella Sgambati, OHB System GmbH, Germany
- Vern Singhroy*, Canadian Centre for Remote Sensing, Canada
- Mark Skinner, The Boeing Company, USA
- Christian Stenzel , Airbus Defence and Space, Germany
- Gongling Sun, China Aerospace Science and Technical Corporation, CASC - European Office, France
- Bob Swinney, HIS, United Kingdom
- Yu-Tan Tan**, University of Waterloo, Canada
- Bob Thirsk**, Canadian Institutes of Health Research, Canada
- Nikolai Tolyarenko* (+), Professor Emeritus, International Space University, France
- Stefanie Toth, Free-lance, France
- Motoko Uchitomi, JAXA- Japan Aerospace Exploration Agency, Japan
- Diego Urbina**, Space Applications Services, Belgium
- Nadjeja Vicente, HE Space Operations BV, The Netherlands
- Shaun Whitehead, Soutek Ltd, United Kingdom
- Kazuya Yoshida*, Tohoku University, Japan
- Olga Zhdanovich*, ESA - ESTEC, The Netherlands
- Cornelius Zund, Satellite Ltd, Germany

* UI Faculty  ** UI Adjunct Faculty  (+) Deceased
The Space Studies Program (SSP), an intense two-month professional development course for postgraduate students and professionals of all disciplines, is a unique educational experience. The curriculum covers the principal space related fields, both non-technical and technical and ranges from policy and law, business and management and humanities to life sciences, engineering, physical sciences and space applications. The shared experience of an international, interactive working environment is an ideal networking forum leading to the creation of an extensive, international, multidisciplinary professional network comprising the program’s alumni (numbering more than 4200 to date), faculty members and visiting lecturers. Through the exchange of ideas and information this network has been successful in advancing projects in such areas as disaster warning and mitigation systems, human health enhancement using space technologies, and has even significantly contributed to the creation of a national space agency. Each year the SSP is held in a different location across the globe. Moving to a national space agency. Each year the program evolves to better meet the needs of the participants and their employers. Participants are strongly encouraged to contribute their own knowledge, experience, ideas, culture and opinions as well as their energy and enthusiasm. Reflecting on ISU’s pedagogical approach and vision, interest in and respect for different cultures and backgrounds is expected from participants.

The layout of these and other elements is depicted graphically below and described in the following pages.

The interdisciplinary curriculum of the SSP, with its emphasis on international cooperation, exposes participants to broad new perspectives on the world’s space activities – perspectives otherwise reserved for those with many years of diverse professional experience. The program is packed with a wide variety of activities, including lectures by renowned experts, hands-on activities and projects, team work and professional visits. The main elements of the SSP curriculum are the core lecture series, workshops, departments, and team projects. All course work at ISU is conducted in English.

The International Space University is delighted to bring its Space Studies Program (SSP) to Ireland for the first time through a partnership with the Cork Institute of Technology. The SSP curriculum emphasizes on being international, interdisciplinary, and intercultural to broaden the perspectives of the participants on the world’s most relevant space activities. Participants will be immersed in ISU’s world-class brand of space education while surrounded with the local Irish culture and the incredible facilities at CIT.

The SSP class of 2016 comprised 103 participants of 25 countries ranging from 21 to 51 years of age. Their professional experience and educational backgrounds are shown in the graphics.
Phase I of the SSP curriculum ensures participants have a basic grounding in the fundamentals of all the disciplines that are relevant to space programs — and that they understand the relationships between these disciplines in any space-related activity. All participants attend the core lecture series, which creates a basic framework of knowledge to prepare participants for informed and balanced judgment.

A series of lectures in each field of study that is designed primarily for non-experts is presented. Thus, medical specialists can understand the lectures on propulsion and engineers and lawyers can understand the lectures on the effects of weightlessness on the human body.

Core lectures are often grouped in clusters. Questions from participants and group discussions with the lecturers are encouraged.

Knowledge gained from the core lectures allows participants to:
- understand the very large range of factors, both technical and non-technical, involved in space activity
- apply good decision-making and management skills to projects
- appreciate the relevance of all disciplines during the development and exploitation of space activities

SSP Workshops are activities designed to enhance and complement the knowledge acquired during core lectures through more active learning in smaller groups. Participants choose activities based on their interests. A number of activities are conducted in parallel and participants must sign up in advance. Topics may be offered more than once so as many people as possible are able to benefit.

Workshop activities offered in SSP17 included:
- Team Project Management and Foundation Skills
- Report Writing and Presentation
- Team Building
- Media Training and Crisis Communications
- ISU LEGO Robotics Competition
- Space Mining – Future Prospects and the Geopolitical Challenge
- Rosetta, Mission: Possible
- Ramon Space Lab – Bringing Space into the Classroom
- Space Operations Workshop
- Space Debris Workshop
- Space Operations Analogs
- Space Outreach – Practice
- Space, a New Frontier for Ethical Interrogation
- Business Models for New Space – How to Design your New Space Company
- Extending the Reach of Outreach
- Radar Image Processing Workshop

Phase II of the SSP is structured around seven academic departments, which provide a focus for smaller groups of participants to hone in on a particular discipline of interest. Each participant chooses one of the following departments:

**SPACE MANAGEMENT AND BUSINESS (MB)**: The basics of topics such as management techniques, financing, cost estimation, risk management and business planning, the economics and contractual aspects of space activities.

**HUMAN PERFORMANCE IN SPACE (HPS)**: With an emphasis on Human Space Flight, the physiological and psycho-sociological changes unique to space flight and planetary exploration and the challenges these present to mission success.

**SPACE POLICY, ECONOMICS & LAW (PEL)**: The role of politics and policy in shaping current space activities and the international legal framework within which space activities must operate.

**SPACE PHYSICAL SCIENCE (SC)**: The basic principles of space physics, astronomy and astrophysics - the electromagnetic spectrum; plasma physics; the geospatial environment; the nature, composition and evolution of our solar system; stellar, galactic and extragalactic astronomy. The microgravity environment and recent and future missions to planets, comets and asteroids.

**SPACE APPLICATIONS (APL)**: The various applications enabled by access to space, focusing on telecommunications, Earth remote sensing, environmental and weather satellites, Global Navigation Satellite Systems and Geographic Information Systems.

**SPACE ENGINEERING (EG)**: The fundamental concepts of on-orbit space vehicles and their associated ground and launch systems. The complex, integrated systems involved in the design of spacecraft, space missions, and international space programs.

**SPACE HUMANITIES (HUM)**: The meaning and significance of humanity’s exploration and utilization of space and the implications of expanding into the cosmos. Why go into space? What impact are space activities having on the human condition? How can we think about the futures of our descendants in space?

**DEPARTMENT ACTIVITIES**

Department activities encourage exchange of knowledge, ideas and opinions through debate and discussion, as well as hands-on activities. Departments have more time to go into greater depth with activities such as:
- A seminar and discussion that go into greater depth following a core lecture
- Visiting a space-related facility in the area
- Building and operating very low frequency radio receivers
- Remote sensing projects using local imagery and involving ground truthing
- Examining barriers to technology transfer
- Presentations by participants on their own work or interests
- Building and launching a small rocket and payload
- Hands-on experience with data systems or experimental hardware
- Debates on space exploration’s impact on society

**PROFESSIONAL VISITS**

During the SSP, departments make professional visits to space agencies, companies, and space-related research institutes/universities. The activity varies based on the available local resources. Some examples of SSP16 professional visits and activities are:
- Visit to Rambam Health Care Campus
- Visit to Israel Oceanographic and Limnologic Research Institute
- Visit to Israel Aerospace Industries MBT Space Division
- Visit to ImageSat International
- Visit to Qsat Satellite Networks Ltd.
- Visit to Elbit Slop
- Visit to Wise Observatory
- Visit to Jacob Blaustein Institutes for Desert Research
- Visit to Orbit Communication Systems Ltd.

**INDIVIDUAL OR SMALL TEAM ASSIGNMENTS**

The department chair will work with each participant to define a short exercise or project as part of the departmental activities. These projects may be done individually or in small teams and include an oral presentation of professional research or a professional paper and presentation on current issues for a conference.

Examples of individual assignment topics include:
- Examining the technical aspects of global navigation satellite constellations
- Analyzing the influence of space exploration on art
- Evaluating reusable launcher technologies
- Collecting research data on human responses under high stress

Examples of team assignment topics include:
- Writing a white paper on the creation of a space agency for an emerging space nation
- Responding to a request for proposal/invitation to tender
- Building and programming a robot to complete an autonomous mission simulation
- Preparing and conducting an international negotiation on space policy in a simulated United Nations setting
SSP PHASE 3

TEAM PROJECTS

In Phase III of the SSP, participants work in international, interdisciplinary and intercultural teams to produce a comprehensive analysis and proposals for an international space project or on a topic of relevance to the professional space sector. Participants choose one from multiple team project topics and work on that topic for the duration of the SSP. This element of the program has three main objectives:

1. To encourage participants to put into practice what they have brought from their own educational and/or professional background, plus knowledge and skills they learn from lectures, workshops and other presentations during the SSP.

2. To experience decision-making and organizing work in sub teams. Also, to learn how to converge on solutions and recommendations while working in multidisciplinary and intercultural teams- where conflicting requirements emerge and compromises must be made.

3. To produce a comprehensive report of professional level and present it in a public session at the end product of the team project. The report covers all aspects - technical, financial, organizational, political, schedule and risk.

Many ISU reports have served as resources for the world space community (see www.isunet.edu for Team Project reports). The structure of team projects depends to some extent on their subject matter, but certain aspects are common to all team projects:

- An early phase of exploratory or brainstorming discussion of the project
- A series of factual lectures specific to the team project topics
- Research and an intensive fact finding period
- A challenging period of wrestling with different ways of organizing the study effort
- Extensive opportunities to engage departmental faculty members and lecturers in discussion of team project issues
- An interim presentation and review where expert advice and comments will be given
- A period of very intensive work to complete the final report

TEAM PROJECT TOPICS FOR SSP16

ARTIFICIAL GRAVITY

One of the key challenges of long-term human presence for exploration and research in low earth orbit is the microgravity environment. In order to expand the capabilities of a future orbiting station the element of artificial gravity may need to be added. This team project will look into the design challenges of a large orbiting facility in low earth orbit. The Artificial Gravity Conceptual Vehicle Design includes key engineering and design considerations for a crewed low earth orbit space station, which uses rotation to provide artificial gravity. It will have a section, which will provide a microgravity environment for research and manufacturing, and a section, which will serve as the docking location for the station. It is designed to be orbited in the 2035 to 2040 timeframe, and it will make living and working in space commonplace. It is expected that up to 200 people may reside on the complex at any one time. Workers and their families will live on board.

Objective: Conceptualize the design and associated analyses of a commercial artificial gravity (AG) LEO space station.

ARTIFICIAL GRAVITY

Recent Mars missions have revealed a new perspective on the Martian geophysical and atmospheric environment, including an abundance of groundwater and the presence of regolith percolation rate concentrations. These findings may provide important resources for human exploration and insight into Martian history while at the same time posing new challenges. Water, and in particular flowing water, is important for life as we know it on Earth and an important resource for any future human colony on Mars. While percolation may pose a significant hazard to future space missions, it may be potentially leveraged as a resource. By studying the origin and utilization of Mars environmental resources on Earth, we gain a better understanding of potential risk and use on Mars.

Objective: Draft a Mars Human space exploration science and technology roadmap that outlines the priorities needed to further understand the potential use and effect of the new discoveries on crew.

POST-SSP TEAM PROJECT ACTIVITIES

ISU alumni regularly present the results of SSP team projects at international conferences and meetings, such as the International Astronautical Congress and the United Nations Committee on the Peaceful Uses of Outer Space. Opportunities for presentation also occur through the invitation of space agencies and businesses. Participants are encouraged to discuss post-SSP publishing possibilities with their Team Project partners and faculty both during and after their SSP experience. SSP15 changed my life because it opened my mind beyond the boundaries of cultural differences. I had the experience of a lot of frank discussions with people from international and multicultural backgrounds. SSP15’s awesome experiences gave me the essential perspective for considering the ‘Future Space’.

SPACE BIG DATA

In the past twenty years the leading question in the acquisition of knowledge and data has changed from “is the answer out there?” to “how do I find the most relevant answer out of the data haystack?” The quests for both obtaining and presenting the most accurate and relevant data are very important to space-related research. Leading research and development organizations, such as NASA and Google, employ whole departments dedicated to the management of knowledge and the improvement of data flow and conservation. Other organizations such as ESA have started annual space data conferences, which discuss the matter of data management, processing and dissemination. There is a need to better the flow of space related knowledge not only within a single organization or research discipline but globally, to all stakeholders.

Objective: Realize the positive educational experience in learning how teamwork and problem solving are achieved in an international, multicultural, and multidisciplinary environment with time and resource.
The SSP curriculum is coordinated by the Core, Department, and Team Project chairs and supported by members of the ISU Faculty. This is a list of invited lecturers and experts for SSP16:

- Reut Abramovitch (Israel)
- Ofir Akunis (Israel)
- Buz Aldrin (USA)
- Andy Aldrin (USA)
- David Alexander (USA)
- Heather Allaway (Canada)
- Douglas Archer (USA)
- Philippe Armbruster (France)
- Ayellet Baram-Tsabari (Israel)
- Yael Bale (Israel)
- Melissa Battler (Canada)
- David Beatty (USA)
- Issac Ben-Israel (Israel)
- Daniel Brack (Israel)
- Asaf Brimer (Israel)
- Ana Brezinska (Poland)
- Angie Bukley (USA)
- Eric Choi (Canada)
- Ian Christensen (USA)
- Jon Clark (USA)
- Jonathan Clark (USA)
- Clint Clark (USA)
- Gilles Clément (France)
- Philippe Clerc (France)
- Jacob Cohen (USA)
- John Connolly (USA)
- Joe Cotti (Israel)
- Jeremy Curtis (GB)
- Volker Damann (Germany)
- Matt Daniels (USA)
- Juan de Dalmau (The Netherlands)
- Kerrie Dougherty (Australia)
- Stacey Faltzaro (USA)
- Michele Faragalli (Canada)
- Michael Flynn (USA)
- Norbert Frischau (Australia)
- Avishay Gal Yam (Israel)
- Maya Glickman-Pariente (Israel)
- Daniel Glover (USA)
- Thomas Goodman (Israel)
- Jeffrey Gossal (USA)
- Daniel Green (USA)
- Vincent Guillaud (France)
- Francesc Guim (Spain)
- Pini Gurfil (Israel)
- Vera Gutman (Israel)
- Douglas Hamilton (Canada)
- Amnon Harari (Israel)
- Michael Hecht (USA)
- Michael Hesse (USA)
- Jeff Hoffman (USA)
- John Hogan (USA)
- Barbara Imhoff (Austria)
- Donald James (USA)
- Michal Jashinski (Israel)
- Ruediger John (Germany)
- Joan Johnson-Freese (USA)
- Jeff Jones (USA)
- Ramtin Khadem (Canada)
- Nimrod Koziolovski (Israel)
- Sergei Krikalev (Russia)
- Ofer Lapid (Israel)
- David Levy (Canada)
- Ari Lipsky (Israel)
- John Logsdon (USA)
- Shirmit Maman (Israel)
- Jeffrey Mannber (USA)
- Nili Mandelblit (Israel)
- Pier Giorgio Marchetti (Italy)
- Hugo Mearre (The Netherlands)
- Mikhail Marov (Russia)
- Gary Martin (USA)
- TanjaMasson-Zwan(TheNetherlands)
- Ruth McAvina (Ireland)
- Chris McKay (USA)
- Jessica Meir (USA)
- Emily Nelson (USA)
- Paolo Nespoli (Italy)
- Jennifer Ngo-Anh (Germany)
- Tim Otto Roth (Germany)
- Degani Paikowsky (Israel)
- Meidad Panerete (Israel)
- Chirag Parikh (USA)
- Bernardo Patti (Italy)
- Walter Peeters (Belgium)
- Lavie Peretz (Israel)
- Ian Port (Israel)
- Danielle Potchter (Israel)
- Michael Potter (USA)
- Rona Ramon (Israel)
- Ewan Reid (Canada)
- Bob Richards (USA)
- Chris Riley (GB)
- Daniel Rockberger (Israel / GB)
- Oshri Rozenheck (Israel)
- Michael Safyan (USA)
- Christian Salabarger (Canada)
- Robert Scheige (USA)
- Randy Segal (USA)
- Keren Shahar (Israel)
- Niamh Shaw (Ireland)
- Michael Simpson (USA)
- Francois Spierio (France)
- Wim Steenbakkers (Netherlands)
- Chris Stott (USA)
- Nicole Stott (USA)
- Michael Suffredini (USA)
- Erin Tranfield (Canada)
- Diego Urbina (Columbia/Italy)
- Ayellet Weizman (Israel)
- Chris Welch (GB)
- Ray Wheeler (USA)
- Loretta Whitesides (USA)
- Jonathan Winetraub (Israel)
- Nathan Wong (USA)
- Yahav Yona (Israel)

In a typical SSP about 150 lecturers and experts from academia, space agencies, industry and from all over the world provide instruction to the student body. A list of the lecturers and experts invited to SSP16 can be found at: http://ssp16.isunet.edu/academics/program-handbook.
The Southern Hemisphere Space Studies Program (SH-SSP) is ISU’s recent program offering, provided in partnership by ISU and the University of South Australia. The program is designed with a particular eye to the southern hemisphere environment and is built around the themes of space applications, policy and services, while giving a well-rounded exposure to the principles and concepts involved in space science, space systems engineering and technology, space business and leadership and space legal and regulatory issues. The program is designed to be the catalyst to boost the role of space for countries in the southern hemisphere and those cooperating with them there, and build human capability and capacity.

The program uses the interdisciplin ary educational method for which ISU is renowned, and includes core lectures from International and Australian experts, workshops and a ‘white paper’ group project lead by faculty and invited experts. The program will take the form of an intensive five week program, providing the International, Inter-cultural, and Interdisciplinary ISU experience in a format and schedule more suited to Southern nations.

As in other ISU programs, participants will benefit from the shared experience of an international, interactive working environment with other professionals, graduate researchers and senior undergraduate students. Successful completion of the program will lead to a graduate qualification or credit towards undergraduate programs in Australia and internationally. Program graduates will become part of the professional networking forum of ISU alumni (numbering more than 4100 to date), faculty members and visiting lecturers.

Nine units (or the equivalent of one quarter of one academic year) of elective credit in a UniSA undergraduate program may be granted by UniSA for successful completion of the SH-SSP. The obtaining of equivalent credit in graduate and undergraduate programs in other Australian and overseas universities will be the responsibility of the individual participant.

**CORE LECTURE SERIES**

The SH-SSP’s interdisciplinary program delivers an expertly designed curriculum suited to the space education needs of professionals seeking additional knowledge of international space systems and services, graduate researchers in all fields seeking a broader understanding of the context of their work, and undergraduate students seeking exposure to the International, Inter-cultural, and Interdisciplinary aspects of space that are not available in their home institutions. This is an accredited Australian Graduate Certificate Program (through UniSA) for local and international students who desire it. An Executive Certificate will be awarded to all participants on successful completion of the program. Holders of the Executive Certificate will receive a 50% credit in the UniSA Graduate Certificate in Space Studies. Holders of the UniSA Graduate Certificate in Space Studies may receive credit for the first module of the ISU Master of Space Studies program held in Strasbourg, France.

**HANDS-ON WORKSHOPS**

Another one third of the program will be allocated to hands-on workshops, public space events, and professional visits in the area. Workshops will often be linked with lectures, with hands-on activities using local remote sensing data, GPS field exercises, collecting satellite data, and other topics. There will be several public events with invited speakers and we will make several professional visits to space-related facilities in the local region.

**WHITE PAPER TEAM PROJECT**

The final one third will be the group White Paper Team Project assignments to be completed in week 5. Each year the program will focus on a theme or application area. The participants will, as a group, research an issue of interest to the Southern Hemisphere nations and then jointly author a White Paper on the subject which will be suitable for sharing with interested organizations and agencies or for submission to an international professional conference.

“The program will change your life, whether it is what you expect or not, it will grab hold and refuse to let go.”

“SH-SSP is a space-themed pressure cooker that teaches you not only about space, but about yourself, and leaves you feeling that you can change the world.”

“The program was un-freaking-believable! The more intense 5 weeks of my life, but by far the best.”

“SH-SSP is a space-themed pressure cooker that teaches you not only about space, but about yourself, and leaves you feeling that you can change the world.”
ISU organizes a number of short courses on request that are tailored to the specifications of the company or organization needing a course. These courses may be prepared in cooperation with partner organizations and delivered at locations chosen by the customer.

Workshops, seminars and courses have been organized on topics such as Telemedicine, Space Propulsion, Communications Satellites, Management of International Space Programs and Projects, and International Strategy and Cooperation in Space.
One particular research project is an innovative cooperation between ISU, the Eurometropole of Strasbourg, the University of Strasbourg and Airbus Defence and Space. The idea is to design an experiment, which will fly aboard the Space Station to investigate the possibility of methane production by micro-organisms in outer space. This is based on recent discoveries of methane plumes (or dynamic traces) on Mars. The strong know-how in this field of microbiology within the Department of Microbiology, Genomics and the Environment at the Laboratory of Molecular Genetics, Genomics and Microbiology, a joint research unit of the University of Strasbourg and the CNRS (French National Center for Scientific Research), combined with the knowledge of space hardware developments at ISU, is a very promising way of fostering new space-related microbiology research in Strasbourg.

This research project is closely linked to the thesis year ISU is proposing, which is considered as an extension to its highly successful one-year MSc in Space Studies (MISS).

The ISU Satellite Ground Station is a fully automated satellite tracking station operating in the amateur radio frequencies. It is an endeavor to unite individual ground stations developed for local educational satellite projects into a global network, thus allowing educational institutions to download telemetry from their student-built satellites regardless of where the satellite was in its orbit.

The discovery of radio emissions from the sky has led to the development of Radio Astronomy. Observations in this frequency domain provide a substantial complement to optical observations, as is exemplified by the discovery of new classes of objects such as radio galaxies, and the discovery of the cosmological microwave background, one of the evidences for the ‘Big Bang’ model of the Universe.

Concurrent Design Engineering has been a leading method for conducting Phase 0 and Phase A studies in the Space Industry for decades. The European Space Agency first established a Concurrent Design Facility at the European Space Research and Technology Center (ESTEC) in 1998. In 2008 this CDF facility was generously donated by ESA to the ISU.

The ISU Physical Sciences Laboratory is the largest dedicated laboratory space at the ISU Central Campus. Here students receive hands-on workshops and project activities involving space physical sciences. Students also have the opportunity to perform individual projects in the Mars Atmosphere Chamber, a low-pressure chamber refurbished and modified by ISU Masters students to simulate the atmospheric conditions of Mars.

The ISU Make-It-Space is a place where students can find a wide variety of tools to support projects ranging from building satellites to bike repair. The facility has been expanding in the second half of 2015 to include a “wet room” for activities involving painting or liquids and a dedicated electronics and robotics lab.

The ISU High Bay is a space where students can find a wide variety of tools to support projects ranging from building satellites to bike repair. The facility has been expanding in the second half of 2015 to include a “wet room” for activities involving painting or liquids and a dedicated electronics and robotics lab.
ADMISSION

MASTER OF SPACE STUDIES PROGRAM

ADMISSION REQUIREMENTS

The ISU Admissions Committee assesses applicants to the Master of Space Studies program on the basis of their academic and professional qualifications, their achievements, and their proficiency in English.

Applicants must have completed a Bachelor’s Degree or equivalent, including 3 years of studies as a minimum, awarded by an accredited university. Information on academic qualification equivalences may be obtained from the ISU Admissions Office.

Preference is given to applicants holding higher academic degrees and to applicants with professional experience in industry, government agencies or academic institutions.

LANGUAGE REQUIREMENTS

Courses are carried out exclusively in English, and all applicants to ISU programs must demonstrate that they are sufficiently proficient in English to follow classes and to conduct project work.

FEES

The tuition fee for the MSS 2018 is EUR 25,000.

The fees for taking the program in modules also amount to EUR 25,000, but a registration fee of EUR 400 will be charged each time the student registers for a subsequent module or series of modules. Students who choose this option must complete their degree within seven years. The tuition fees for each module are as follows:

- Module 1: EUR 3,500
- Module 2: EUR 7,500
- Module 3: EUR 3,500
- Module 4: EUR 3,500
- Electives: EUR 2,000
- Module 5: EUR 3,000
- MSS Year B (optional): EUR 7,500

FUNDING

The ISU Admissions Committee assesses applicants to the Master of Space Studies program on the basis of their academic and professional qualifications, their achievements, and their proficiency in English. The decision on admission is made by the ISU Admissions Committee.

Applicants must have completed a Bachelor’s Degree or equivalent, including 3 years of studies as a minimum, awarded by an accredited university. Information on academic qualification equivalences may be obtained from the ISU Admissions Office.

Preference is given to applicants holding higher academic degrees and to applicants with professional experience in industry, government agencies or academic institutions.

LANGUAGE REQUIREMENTS

Courses are carried out exclusively in English, and all applicants to ISU programs must demonstrate that they are sufficiently proficient in English to follow classes and to conduct project work.

FEES

The fees for the SSP17 are EUR 18,000. Payment may also be made in US dollars at the time of registration.

The fees for the SSP18 are EUR 18,000. Payment may also be made in US dollars at the time of registration.

Participants who complete the SSP successfully in 2017-2018 (with validation by the admissions committee) pay a total tuition fee of EUR 34,000.

Participants who successfully completed an earlier SSP pay a tuition fee of EUR 19,500 (plus a EUR 400 registration fee) for the MSS 2018, on the condition that they graduate within seven years of completion (with validation by the admissions committee).

FUNDING

The International Space University receives support from industry, agencies and international organizations to assist applicants who are unable to pay the full amount of the fees and are seeking funding assistance through the institution.

Funding is provided to selected applicants, covers part of the tuition fees, and is paid directly to ISU by the sponsoring organization.

Financial support is granted on the basis of:

- Academic and professional merit
- Demonstrated efforts in personal fundraising
- Demonstrated financial need
- For financial support no extra document is required other than the application form

To be eligible for such funding, students should send their applications to the ISU Admissions Office at least 30 days before the Application deadline.

MCCENTIVE SCHOLARSHIP OPPORTUNITIES

Specific scholarship opportunities are available through:

- American Astronautical Society
- CAINS Associates
- Centre National d’Etudes Spatiales (CNES)
- European Space Agency (ESA)
- IFAMRASET
- Japan Aerospace Exploration Agency (JAXA)
- Enterprise Ireland
- UK Space Agency
- Norwegian Space Center
- SES
- Communauté Urbaine de Strasbourg
- Region Alsace

For more information, please visit the ISU website: http://www.isu.edu