Official 1989 Application U.S. SPACE CAMP® ALABAMA • FLORIDA

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U.S. SPACE CAMP® SPACE ACADEMY[™]

The U.S. SPACE CAMP appreciates the direct support of the NASA-Marshall Space Flight Center in Alabama and the NASA-Kennedy Space Center in Florida in its programs.



PRINCIPAL DONORS

The following corporations are principal donors to U.S. SPACE CAMP, U.S. SPACE ACADEMY and The Space and Rocket Center. The Center acknowledges the significant support of its educational activities by these and other contributors.





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COVER: George Miller and Debbie Edwards in Atlantis flight deck. PHOTO: Mike Mercier © ou are on the threshold of an dincredible journey: life in the 21st Century. It will arrive quicker than you imagine; in fact, about the year you graduate from college.

And the countdown has already started. Your level of achievement in math and science and the educational opportunities you encounter now will determine, to a great extent, whether you will play a major role in charting new directions or merely observe from a distance.

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If you are eager to fly a plane or the shuttle, come and learn. With assistance from NASA and its team of contractors, you'll approach the aerospace field methodically and correctly.

SPACE CAMP and SPACE ACADEMY are the most exciting and rewarding opportunities

on Earth for people your age who are eager to get involved. Here you explore all fields, from the design of rockets and spacecraft to how astronauts conduct microgravity experiments beyond Earth's atmosphere.

We're looking for young people who know that you can't learn firsthand what it's like to be on a shuttle crew from just reading or watching television. Come size up a full-scale orbiter, climb aboard a simulator and suit up for flight. Learn how important mission control jobs are and study about other careers in the space program of the 21st Century.

It's quite likely that the first American to walk on Mars is about your age right now. You can help put that person there. Or be that person yourself.

SPACE CAMP ALABAMA



SPACE CAMP is a week-long program for youngsters completing grades 4,5,6.

FIVE-DAY MISSION





FACING PAGE: Be photographed in a spacesuit. TOP: Experience the 5 Degrees of Freedom. BOTTOM: Campers study actual rockets.

ARRIVAL

Check-in is scheduled for 1-5 p.m. Follow signs to Registration. You'll meet your team leader and other members of your team, at the 5 p.m. orientation.

DAY ONE

Trainees are briefed on basic principles of propulsion and spacecraft guidance and control on ROCKETRY DAY before beginning assembly of their own individual model rockets. A guided tour of the rocket park which former Astronaut John Glenn calls "the most complete in the world" identifies the roles of each rocket in the advancement of the space program. Most of the rockets were engineered and tested at the nearby NASA-Marshall Space Flight Center and the U.S. Army-Redstone Arsenal. Beginning tonight, such Omnimax films as "To Fly," "Hail Columbia," and "The Dream is Alive" are shown in the Spacedome Theater.

DAY TWO

NASA astronauts train for many years before their first flight. The objective of ASTRONAUT TRAINING DAY involves trainees in a variety of specific activities, from packaged food and waste management systems to life support systems for living in space. They handle and try on spacesuits and helmets and study actual Mercury and Apollo spacecraft that have flown in space. A tour of the NASA center where tomorrow's space missions are being planned is on the agenda.

DAY THREE

A highlight of the week, MICROGRAVITY DAY, casts youngsters in the role of astronauts preparing for space walks and coping with the "zero gravity" of space. They practice in the Moon Walk Trainer, which simulates the sensation of walking on the Moon, where body weight is one-sixth that of normal. They observe as their team leader spins and tumbles in the Multi-Axis Trainer, similar to the device in which Mercury astronauts were conditioned should their craft tumble out of control. They experience the sensation of up to 3 G's—or triple normal body weight—during an experience in the Centrifuge. Also, rendezvous with an orbiting space station while aboard the Shuttle Space Liner. A tour of NASA's neutral buoyancy tank—a million gallon water tank where astronauts trained—prepares them for an underwater task involving simulated weightlessness at a swimming pool.

DAY FOUR

NASA's Marshall Space Flight Center is in the forefront of planning the nation's first permanent Space Station. Trainees study development of large space structures and their benefit for mankind. The mission of TOMORROW'S TECHNOLOGY DAY outlines a variety of careers in the aerospace field apart from that of astronaut—that will be available in the future. They also launch their model rockets, with the mission of safely recovering their payload.

DAY FIVE AND DEPATURE

The culmination of the week is SPACE SHUTTLE MISSION DAY, an experience about which most youngsters can only dream. Each team of 12 youngsters is divided into crews for the shuttle spacecraft and Mission Control. Using equipment acquired from NASA, team members conduct a simulated mission, beginning with checkout, countdown, launch, orbit, and return to Earth. Each team's performance depends upon how well campers apply principles learned earlier in the week.

Family members are invited to graduation ceremonies at 1 p.m. where each trainee receives SPACE CAMP wings, certificates and color group photo. Special team awards will be presented at the conclusion of an exciting week. Certificate framing is available after graduation. (Remember to get team members' names and addresses in your Astronaut Log to keep in touch!) Schedule airline flights departing after 4 p.m. Unless other arrangements have been made, trainees should have their belongings out of the dormitory by 4 p.m.

TUITION. The fee includes meals, educational program and materials, accommodations, T-shirt, and visor. See pages 22-23 for tuition and schedule.

NOTE: Activities may occur on days other than listed for best scheduling.



Camper performs gravity exercise under water.

SPACE CAMP

FLORIDA



SPACE CAMP is a week-long program for youngsters completing grades 4,5,6,7.

FIVE-DAY MISSION

Attend SPACE CAMP in the environment of NASA's Space Shuttle launch site on the east coast of Florida. This program is jointly sponsored by the Mercury Seven Foundation and the U.S. Space Camp Foundation.

Established by the original American astronauts, the Mercury Seven Foundation seeks to elevate the standard of education and maintain the highest level of American technology through college scholarships to outstanding young men and women. Admiral Alan B. Shepard, Major Deke Slayton, Commander Scott Carpenter, Colonel Gordon Cooper, U.S. Senator John Glenn, Mrs. Betty Grissom and Captain Wally Schirra encourage today's generation of young people to attend Space Camp in Florida and prepare for careers in space, science and high technology.

PREVIOUS PAGE: Monitors aid Mission Control crew. BELOW: Interior of Training Center in Florida.



ARRIVAL

Trainees traveling by plane should schedule flights to arrive at the Orlando International Airport by noon to be met by a uniformed Space Camp representative. Check-in at the Training Center is from 1 to 4 p.m. Car arrivals before noon are subject to early arrival fees. Families driving from Orlando should travel east on Beeline to road 528, exit to 407 North, then to 405. Grissom Blvd. is the first street on the right, behind Lockheed. Parent briefings are held on the hour.

DAY ONE

Your adventure on LAUNCH DAY begins with a survey of propulsion and spacecraft guidance before traveling to the Kennedy Space Center. Spaceport USA's Rocket Garden contains all types of rockets which have been launched from pads at nearby Kennedy Space Center and Cape Canaveral Air Force Station during the past 30 years. You begin assembly of your own model rocket.

DAY TWO

NASA astronauts train for many years before being launched from Florida's space coast. The objective of ASTRONAUT TRAINING DAY involves trainees in a variety of specific activities, from packaged food and wastemanagement systems to life-support systems for living in space. In the evening, your team exchanges ideas for types of orbiting structures prior to building a model. You'll be introduced to astronomy while working with telescopes at the Brevard Community College's planetarium.

DAY THREE

A highlight of your week, MICROGRAVITY DAY puts you in the role of astronauts preparing for space walks and coping with the zero gravity of space. You practice in the microgravity trainer which simulates the sensations of walking on the Moon. The Five Degrees of Freedom machine offers a unique perspective of freedom of movement. A swimming pool is used to practice a Skylab film cannister task in simulated weightlessness.

DAY FOUR

A short distance from NASA's launch pads, your week climaxes with MISSION DAY, focusing on your team's simulated flight at the Florida training center. Based on training throughout the week, your team's mission control and flight crew conduct a simulated mission from countdown to orbit and landing. You also launch your model rocket and determine how successfully you assembled the elements. When you return to your room tonight, look across the Indian River and see if you can identify the sites at Kennedy Space Center: the Vehicle Assembly Building, Pads 39-A and 39-B.



Trainees at Kennedy Space Center launch pad.

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DAY FIVE AND DEPARTURE

The week culminates with graduation exercises at 9 a.m. in front of family members in the beautiful Galaxy Theater at Spaceport. Teams with the best mission, large space structures design and rocket launch will be recognized.

Schedule airline flights departing after 12 noon, while those going by car have another opportunity to visit NASA and exhibits.

TUITION—The fee includes meals, educational program and materials, accommodations, T-shirt and visor. See pages 22-23 for tuition and schedule.

NOTE: Activities may occur on days other than listed for best scheduling.



TOP: Launch your own rocket. BOTTOM: Shuttles are launched across the Indian River from Howard Johnson Lodge.

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SPACE ACADEMY

LEVELI

Level I is a week-long program for trainees completing grades 7,8,9. Prior participation in SPACE CAMP is not required.

9

FIVE-DAY MISSION







TOP: Work under way during E. V.A. CENTER: Spacelab includes NASA hardware. BOTTOM: Assembly in simulated weightlessness.

ARRIVAL

Check-in is scheduled from 1-5 p.m. Follow signs to registration. Meet your team during orientation at 5 p.m.

DAY ONE

The space odyssey begins on SHUTTLE OPERATIONS DAY with familiarization of the Shuttle cockpit and ground control simulators developed exclusively for the SPACE ACADEMY program. The full-scale Spacelab module is derived from the actual payload crew training model they tour at the Marshall Space Flight Center, NASA's lead facility where Spacelab and Astro, Starlab, ESA crews train. The Mission Control Center in Houston is reproduced to track the simulated flights. And the Shuttle cockpit is accurate, including its ability to pitch and yaw during launch and the return to Earth.

DAY TWO

After being divided into teams, the trainees narrow their choices and begin training for their mission assignments. Most will train simultaneously for crew and ground positions. The purpose of MISSION ASSIGNMENTS DAY is sharpened with studies of various spacesuits as life-support systems during spacewalks.

DAY THREE

As the countdown begins on the missions, the investigation of payloads on MISSION EXPERIMENTS DAY intensifies, covering satellite deployment, and operation of the large remote manipulator arm which will relate to missions in the two following days. Training for mission experiments prepares them for the actual, real-time experiments scheduled onboard. They handle experimental equipment to understand the objectives and mechanics of the scientific investigations, as well as how to evaluate results. Additionally, they construct a large space structure under water in simulated weightlessness.

DAY FOUR

Each flight team begins the series of Spacelab flights that occur over a two-day period. On MISSION DAY ONE dramatic countdown and launch are monitored by the ground control team on a multi-screen system. A computer-generated Image of the Shuttle orbit tracks the path as the commander and pilot operate the control system of the simulator to achieve proper orbit. The payload specialists conduct actual experiments inside the Spacelab module and in the Space Station, while mission specialists conduct "space walks" outside of the crew cabin. After docking with the Space Station, the Shuttle crew returns to Earth.

DAY FIVE AND DEPARTURE

Team members exchange assignments on MISSION DAY TWO to increase their exposure to both onboard activities and ground support roles. A debriefing follows each mission. The presentation of awards, wings and certificates during graduation ceremonies at 1 p.m. concludes the unique educational experience. Family members are invited. Schedule airline flights departing after 4 p.m. Unless other arrangements have been made, trainees should have their belongings out of the dormitory by 4 p.m.

TUITION. The fee includes meals, educational program and materials, accommodations, T-shirt and cap. See pages 22-23 for tuition and schedule.

NOTE: Activities may occur on days other than listed for best scheduling.

U.S. SPACE ACADEMY will offer a limited capacity "test" program in the summer to challenge the skills and endurance of potential aviators. "Aviation Challenge" will offer a 5-day program for trainees in grades 9-12 to train in water and land survival, fly an F-4 Phantom simulator and experience parachute training. Contact U.S. SPACE ACADEMY after March 1 for details.

Trainees use GMMMU and 5DF during "space walk" task.



SPACE ACADEMY

LEVEL II



Level II is a college accredited 10-day program which emphasizes the academic foundation for space-related careers for grades 10, 11, 12. Prior enrollment is not required.

TEN-DAY MISSION

THE MISSION

To help train America's youth for the demanding careers that lie ahead in aerospace and other high-tech fields, The Space and Rocket Center has added an accredited advanced level to its SPACE ACADEMY programs. Level II students may train in aircraft cockpit trainers, the Underwater Astronaut Trainer and a Space Station module. The program features a series of two-hour missions in preparation for a 24-hour simulated Space Shuttle mission.

Enrollment is open for high school sophomores, juniors, and seniors. Prior enrollment in Space Academy is not required.

Level II covers more than 100 hours of instruction and training in 10 days. Registration is from 3-5 p.m.

THE PROGRAM

The training curriculum for Level II is patterned from NASA crew training manuals and is performed in facilities designed from astronaut training simulators. The program is accredited for 1 hour of college credit in science. Each student is automatically registered for credit through the University of Alabama in Huntsville. A transcript from UAH is available upon request four weeks after attendance.

Space Academy team leaders and counselors are highly motivated and well trained young adults who attend universities throughout the U.S. Most are seeking or have obtained degrees in engineering, science, or education as their career goals.

Students receive sound academic instruction, authentic astronaut training procedures, and have an opportunity to explore future careers by talking with current space professionals.

FACING PAGE: Shuttle's cargo bay is setting for satellite repair.

MISSION PROFILE

Stand by to launch yourself into 10 days of the best space training this side of the Astronaut Corps! Level II combines academics with flight training patterned after the astronauts' own training schedules. All students are trained in Space Shuttle flight and ground crew procedures, and receive academic instruction to enhance their understanding. Students entering Level II will be placed in one of three tracks of study and training: Technology (payload specialist), Engineering (mission specialist), or Aerospace (commander or pilot). The three tracks will combine as a team for final training and simulated missions.

TECHNOLOGY TRACK—Technology students design and conduct Space Shuttle experiments with instruction in solar and space plasma physics, space biology, astrophysics, remote sensing, materials science, optics, and computers. Scuba instruction will allow them to test their experiments in a simulated microgravity environment prior to mission simulations.

ENGINEERING TRACK—Engineering track students study robotics, optics, materials science, structures, thermodynamics, to prepare for their mission specialist role. They are trained in scuba techniques to conduct EVAs and microgravity experimentation in the Underwater Astronaut Trainer at U.S. SPACE ACADEMY.

AEROSPACE TRACK—Aerospace track trainees focus on the foundations needed for a potential aerospace engineer, Shuttle commander or pilot, or aviation career. The academic program includes celestial navigation, aviation ground schooling, meteorology, orbital mechanics and space piloting. Field visits include the Airport Control Tower or a visit to the "flight line" of the Air National Guard for briefings.

Tracks are determined on a first-come, firstserved basis according to preferences on application. Applicants will be sent required forms for physician and parent/guardian approval for scuba instruction. Scuba form



Trainees descend into 122,000-gallon Underwater Astronaut Trainer.

should be sent at least 6 weeks prior to arrival and no earlier than 3 months prior to arrival. Minimum physical requirements: height of 5 feet, weight of 100 pounds, age 15.

MISSION PLANNING—Teamwork is the key to space missions. All three Level II tracks work together in integrated working group sessions to plan their Space Shuttle "missions".

DEPARTURE

With graduation ceremonies beginning at 1 p.m., those departing Huntsville by air should make reservations for flights after 4 p.m. Unless other arrangements have been made, have belongings out of the dormitory by 4 p.m. Families are invited to attend graduation. **TUITION**—The tuition for the collegeaccredited program includes meals, accommodations, program travel and educational materials. See pages 22-23 for tuition and schedule.

ACCREDITATION—Completion of each track (Aerospace, Engineering and Technology) earns 1 hour credit of freshman-level science from the University of Alabama in Huntsville.

NOTE TO LEVEL II PARTICIPANTS: An additional health form is required for persons who will participate in underwater scuba activities. Your acceptance to the program is conditional upon satisfactory completion of the second document. It will be mailed to you with your confirmation form following registration.

SPACE ACADEMY

TEACHERS PROGRAM ADULT PROGRAM



'Teaching the Future' is supported by The University of Alabama in Huntsville and NASA-Marshall Space Flight Center for professional educators.

TEACHERS PROGRAM

TEACHING THE FUTURE:

SPACE ORIENTATION FOR PROFESSIONAL EDUCATORS

A unique partnership of sponsors brings classroom teachers up-to-date on subjects involving mankind's adventure into space and offers hands-on training so they are better prepared to relate science and other subjects to today's students, who are the leaders of the 21st century.

"Teaching the Future: Space Orientation for Professional Educators" is offered jointly by the U.S. Space Academy, The Space and Rocket Center, The University of Alabama in Huntsville and supported by NASA's Marshall Space Flight Center.

The program is designed for educators interested in remaining abreast of the space program and the resulting technology benefits. It offers innovative ideas which can be used in their classrooms. UAH's Department of Education shares this educational goal of stimulating students to study science, engineering, and other space related subjects. Instructors come from the university's distinguished faculty, NASA and experts from aerospace firms.

MISSION PROFILE

The course covers a five-day period from Sunday evening until Friday afternoon and includes 16 blocks of instruction, plus films, laboratory demonstrations, a space education seminar, and a guided tour of NASA facilities. In addition, training occurs in Space Shuttle simulators and astronaut training devices prior to two simulated missions. Some 38 hours of classroom, laboratory and training time provide access to highly qualified instructors and guest lecturers.

Participants learn space technology principles from authorities in the corporate, NASA and university communities, and see them refined in the NASA workplace. They put their knowledge to the test in mission simulations, acting as commander or pilot, performing "space walks" in suits, conducting experiments in a Space Station and directing the missions from Mission Control. These and other activities improve teachers' understanding of the function and capabilities of the shuttle as a transportation system.

SESSIONS—The five-day course begins with registration on Sunday at 6-8 p.m. and concludes Friday at 2 p.m. Course dates are:

March 12-17 June 11-16 June 18-23 June 25-30 July 9-14

July 23-28 July 30-Aug. 5 Aug. 6-11

July 16-21

CURRICULUM—NASA: History and Mission; Space Transportation System; Hubble Space Telescope; Space Station; Astronomy/ Astrophysics; Impact of Space Technology; Working/Living in Microgravity; Space Physiology; Science Communications; Optics/ Holography; Principles of Rocketry/Propulsion; Space Education Seminar; Space Simulators Orientation; Shuttle Mission Training; NASA Education Materials; International Space Programs

CREDITS AND FEE—Registration fee of \$595 includes University of Alabama in Huntsville (UAH) registration for 3 semester hours of graduate credit or 3 teacher equivalency units, meals from Monday breakfast through Friday lunch, lodging from Sunday night through Friday noon and laboratory course materials fee.



Space Station module is center of activity for experiments.

ADULT PROGRAM

Adults can join in the excitement of learning about the Shuttle Transportation System and America's future in Space. While program material might not be difficult enough for pilots, engineers, and aerospace-trained personnel, the broad range of subjects and activities brings a unique "astronaut experience" within the grasp of the general public and professionals alike.

DAY ONE

After registration and check-in, senior staff members conduct an orientation on the Space Shuttle, mission simulation, and astronaut training activities. Participants learn that the shuttle's propulsion system was developed in Huntsville by NASA and its contractors. The 40 trainees are divided into teams for mission preparation. The active, hands-on program continues with simulator orientation. Participants experience activities in two space walk simulators: The Five Degrees of Freedom (5DF) and the Manned Maneuvering Unit (MMU).

DAY TWO

Team members take turns inside the Multi-Axis Simulator while other trainees experience triple gravity in the Centrifuge and tour the Earth's largest space museum. In the next period, the schedule is reversed. One group takes positions in mission control and the Shuttle simulator for mission practice while others experience one-sixth gravity in a device similar to the one that trained Apollo astronauts to walk on the Moon. In each mission, the 20 members are divided into two groups. The flight crew strap themselves inside the Shuttle trainer for countdown and launch. During "space walks," mission specialists don space suits and use the remote manipulator to build large space structures.

DAY THREE

The final day goes by guickly, with the second round of Shuttle simulations. Team members who performed tasks in mission



Adults applaud successful mission.

control take their seats in the shuttle and flight participants fulfill their new duties in ground control. Recipients of "The Right Stuff" awards are announced, along with presentation of wings and certificates.

SUNDAY

A highlight of Sunday afternoon is a presentation by a visiting astronaut. The schedules of various astronauts associated with SPACE ACADEMY determine which astronaut visits with participants.

TUITION—SPACE ACADEMY registration fee is \$450 and includes meals and dormitory accommodations.

CHECK-IN/OUT

Friday registration begins at 8 a.m., with graduation Sunday at 5 p.m. Airport transportation is included in tuition.

1989 ADULT SPACE ACADEMY DATES

Sept. 22-24	Oct. 13-15
Sept. 29-Oct. 1	Oct. 20-22
Oct. 6-8	Oct. 27-29

HOW TO REGISTER

Registrants may use a credit card to reserve a specific session by phone, and should forward the completed application by mail Phone toll-free to the Reservation Center for assistance at

1-800-63SPACE

We accept Visa, MasterCard and the American Express Card.

If you register by phone, PLEASE indicate this on the printed application you mail later to insure your credit card will not be charged twice. NOTE: Your account will be billed upon reservation.

Redistration may also be made by mailing the completed application with appropriate choices of date (pending availability) with a check or money order payable to "The Space and Rocket Center."

You will receive a printed Confirmation Notice of your registration and a Transportation Form for you to complete and return should your arrival be other than by car.

DATE CHANGE FEE: You are entitled to

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Program	JanMay	June-Aug.	SeptDec.
Space Camp-Alabama	\$450	\$550	\$425
Space Camp-Florida	\$450	\$550	
Space Academy Level I	\$500	\$600	\$475
Space Academy Level II	\$800	\$800	\$700
Adult: Space Academy			\$450
Educators (May-Aug.)		\$625	
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make a change of your session date once

with no charge. Any transfer of sessions

afterwards is subject to a \$25 charge per

PLEASE NOTE: Keep this booklet until

you leave home to answer your questions about

transportation, items to bring, graduation, etc.

available and suitable for presentation for

Christmas, birthdays and other special

GIFT CERTIFICATES for all programs are

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1989 DATES

SPACE CAMP/ACADEMY LEVEL BLUE WEEKS (Wed-Mon) **RED WEEKS (Sun-Fri)**

Jan. 22-27	May 7-12	Aug. 20-25
Jan. 29-Feb. 3	May 14-19	Aug. 27-Sept. 1
Feb. 5-10	May 21-26	Oct. 1-6
Feb. 12-17	May 28-June 2	Oct. 8-13
Feb. 19-24	June 4-9	Oct. 22-27
Feb. 26-Mar. 3	June 11-16	Oct. 29-Nov. 3
Mar. 5-10	June 18-23	Nov. 5-10
Mar. 12-17	June 25-30	Nov. 12-17
Mar. 19-24	July 2-7	Nov. 19-24
Mar. 26-31	July 9-14	Nov. 26-Dec. 1
April 2-7	July 16-21	Dec. 3-8
April 9-14	July 23-28	Dec. 10-15
April 16-21	July 30-Aug. 4	Dec. 17-22
April 23-28	Aug. 6-11	Dec. 24-29
April 30-May 5	Aug. 13-18	

Jan. 4-9	May 17-22	Aug. 2-7
Jan. 11-16	May 24-29	Aug. 9-14
Mar. 15-20	May 31-June 5	Aug. 16-21
Mar. 22-27	June 7-12	Aug. 23-28
Mar. 29-Apr. 3	June 14-19	Aug. 30-Sept. 4
April 5-10	June 21-26	Dec. 6-11
April 12-17	June 28-July 3	Dec. 13-18
April 19-24	July 5-10	Dec. 20-25
April 26-May 1	July 12-17	Dec. 27-Jan. 1
May 3-8	July 19-24	
May 10-15	July 26-31	
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FLORIDA SPACE CAMP **RED WEEKS (Sun-Fri)**

Jan. 15-20	April 9-14	July 2-7
Jan. 22-27	April 16-21	July 9-14
Jan. 29-Feb. 3	April 23-28	July 16-21
Feb. 5-10	April 30-May 5	July 23-28
Feb. 12-17	May 7-12	July 30-Aug. 4
Feb. 19-24	May 14-19	Aug. 6-11
Feb. 26-Mar. 3	May 21-26	Aug. 13-18
Mar. 5-10	May 28-June 2	Aug. 20-25
Mar. 12-17	June 4-9	Aug. 27-Sept. 1
Mar. 19-24	June 11-16	Sept. 3-8
Mar. 26-31	June 18-23	
April 2-7	June 25-30	

BLUE WEEKS	(Wed-Mon)
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Jan. 18-23	April 5-10	June 21-26
Jan. 25-30	April 12-17	June 28-July 3
Feb. 1-6	April 19-24	July 5-10
Feb. 8-13	April 26-May 1	July 12-17
Feb. 15-20	May 3-8	July 19-24
Feb. 22-27	May 10-15	July 26-31
Mar. 1-6	May 17-22	Aug. 2-7
Mar. 8-13	May 24-29	Aug. 9-14
Mar. 15-20	May 31-June 5	Aug. 16-21
Mar. 22-27	June 7-12	Aug. 23-28
Mar. 29-April 3	June 14-19	Aug. 30-Sept. 4

SPACE ACADEMY LEVEL II DED W/FEKS /Fri-Sun Ten Davs

RED WEEKS	(Fri-Sun Ten Da	ays)	BLUE WEEK	S (Sun-Tues Te	en Days)
Jan. 20-29 Jan. 27-Feb. 5 Feb. 3-12 Feb. 10-19 Feb. 17-26	June 2-11 June 9-18 June 16-25 June 23-July 2 June 30-July 9	Sept. 15-24 Sept. 22-Oct. 1 Sept. 29-Oct. 8 Oct. 6-15 Oct. 13-22	Jan. 15-24 Jan. 22-31 Jan. 29-Feb. 7 Feb. 5-14 Feb. 12-21	June 18-27 June 25-July 4	Sept. 10-19 Sept. 17-26 Sept. 24-Oct. 3 Oct. 1-10 Oct. 8-17
Feb. 24-Mar. 5 Mar. 3-12 Mar. 10-19 Mar. 17-26 Mar. 24-Apr. 2	July 7-16 July 14-23 July 21-30 July 28-Aug. 6 Aug. 4-13	Oct. 20-29 Oct. 27-Nov. 5 Nov. 3-12 Nov. 10-19 Nov. 17-26	Feb. 19-28 Feb. 26-Mar. 7 Mar. 5-14 Mar. 12-21 Mar. 19-28	July 9-18 July 16-25 July 23-Aug. 1 July 30-Aug. 8	Oct. 15-24 Oct. 22-31 Oct. 29-Nov. 7 Nov. 5-14 Nov. 12-21
Mar. 31-Apr. 9 Apr. 7-16 Apr. 14-23 Apr. 21-30 May 26-June 4	Aug. 11-20 Aug. 18-27 Aug. 25-Sept. 3 Sept. 1-10 Sept. 8-17	Nov. 24-Dec. 3 Dec. 1-10 Dec. 8-17	Mar. 26-Apr. 4 Apr. 2-11 Apr. 9-18 Apr. 16-25 Apr. 23-May 2	Aug. 6-15 Aug. 13-22 Aug. 20-29 Aug. 27-Sept. 5 Sept. 3-12	Nov. 19-28 Nov. 26-Dec. 5 Dec. 3-12 Dec. 10-19

AIRLINES RESERVATIONS

CONTINENTAL and EASTERN Airlines, the official airlines of SPACE CAMP and SPACE ACADEMY, offer attendees and their families special discount fares to Huntsville and Orlando.

The airlines offer a minimum 50 percent discount off the round-trip coach (Y) fare. Reservations made at least 30 days prior to departure may result in even larger air fare discounts. (Eastern Express and Continental Express discounts may vary.)

Special identification badges are provided with your verification form to ensure proper identification and special handling during travel and upon arrival.

To receive the low discounts and services provided by CONTINENTAL and EASTERN especially for attendees, please call

1-800/468-7022

and refer to Easy Access code EZ 14GP26 for Florida and EZ 14GP24 for Alabama. Be sure to identify yourself as a Space Camp or Space Academy attendee.



TRANSPORTATION

A Space Center staff member will be at the airport or bus station to meet campers who are not arriving by automobile.

If you will complete the TRANSPORTATION FORM that you receive with your Confirmation Notice and return it no later than FOUR WEEKS prior to scheduled arrival, it will ensure assistance and pick up. Verification of transportation is mailed four weeks prior to arrival if you have notified Space Camp of your plans.

If you have a transportation problem enroute or upon arrival, call the Space Camp office at 205-837-3400 in Alabama or 407-267-3184 in Florida, identify yourself and state your present location and problem. DO NOT LEAVE THE AIRPORT or BUS TERMINAL. Your problem will be resolved.

CONTINENTAL

If we have not received the Transportation Form TWO WEEKS prior to the program date, we will assume you are arriving by car and, therefore we will not have Space Center personnel scheduled to meet your plane or bus.

If there is any change in your transportation arrangements or if the method of transportation changes from that indicated on your application, you must notify the Space Camp transportation office.

VIDEOS AND FLIGHTSUITS

TEAM VIDEOTAPE—A videotape of activities during your week at Space Camp or Space Academy Level I is available by prior arrangement on a limited, first-come basis for \$40. This tape, which must be ordered upon registration, shows you and your team with team member being shown about 3 minutes each.

Reserve your tape when making the session reservation by phone and/or complete the appropriate section of the Application Form and forward by mail. Persons who are on a video team will be taped several times during their training activities. About six weeks following graduation, you will receive a 40-minute VHS Tape.

IMPORTANT: Coming with a friend? If you order a videotape AND express a teammate preference, the friend will be on the same "video team" ONLY if he/she also reserves a tape. A request for a video will override teammate preference.

Should we not be able to accommodate your video order, you will receive a refund. (Available in Alabama and Florida.) **FLIGHTSUIT:** Attractive flightsuits with emblems and the American flag are available either by pre-payment or purchase after arrival for \$70. Should you wish to pay in advance, complete the appropriate space on the Registration Form and add \$70 to the total figure for your check or credit card payment. Your youngster will be measured by Gift Shop personnel for the appropriate size after arrival.

SPACE GEAR AVAILABLE BY MAIL: You can order Official SPACE GEAR clothing, abuttle mission incidence backs wideout and

shuttle mission insignias, books, videos and other items by mail. To receive a colorful Gift Shop catalog, phone 1-800-533-7281 or call in Alabama 1-800-572-7234.

GIFT SHOPS are located on site in Alabama and Florida for participants to visit during breaks and after graduation. A large selection of official Space Gear clothing, NASA mission insignias, books, postcards and spacecraft models are available for purchase or mail order. (A survey of campers indicates they spend an average of \$40 on gifts, souvenirs, books and snacks.)



Gift items are also available by mail order.

IMPORTANT INFORMATION

WHAT TO BRING: The average spring and fall temperature is 65 degrees and the average summer temperature is 88 degrees.

- combination padlock
 comb/brush for locker sleepwear swimwear
- shorts (in good taste)
- shirts/blouses
- any needed medication blue jeans
- walking shoes and/or
 raincoat tennis shoes notebook
- toothbrush and
- toothpaste
- soap
- suntan lotion

• bug repellant PACK IN A CLOTH BAG! Don't overpack!

wristwatch

and pen

iacket (spring)

clothes hangers

HOUSING IN HUNTSVILLE is provided in the U.S. Space Camp and Academy Space Habitat. The habitat houses students in Space Station and Earth Station environments. Trainees in advanced programs will be housed in the Space Station habitat modules first, with remaining sleep stations filled by lower level programs. (On occasion, trainees will be housed at Marriott Hotel.)

HOUSING IN FLORIDA is conveniently located at the Howard Johnson Lodge in Titusville on U.S. 1 north of Highway 405. Trainees stay in a separate wing of the motel. Additional rooms are available for parents.

The following items are furnished at each location:

2 towels	2 sheets	1 pillow
1 bath cloth	1 blanket	1 pillowcase

MEALS in Alabama are served in the Training Center cafeteria which is also open to the public. Meals in Florida are served near the Howard Johnson, All meals are provided from afternoon arrival through graduation.

SNACKS are available at several locations during break periods. Soft drinks, crackers and other items are stocked in vending machines at various sites.

A REGISTERED NURSE is on duty on the premises 24 hours a day. Emergency health services will be provided ONLY IF the medical form on the reverse side of the application is completed upon registration, including a

physician's and parent's signature. THE HEALTH INFORMATION SHEET MUST BE COMPLETED BEFORE ARRIVAL.

DAMAGE RESPONSIBILITY: Replacement or repair costs of furniture, supplies or other materials will be charged to parents/ quardians of trainees associated with any such acts, at the direction of the director.

PHONE CALLS can not be received by participants on a routine basis because they are involved in many areas of the facilities and touring other space-related centers in the area. Pay phones are conveniently located throughout the facilities for use during break times each day.

In case of an emergency, call the Huntsville switchboard 205-837-3400 or Space Camp Duty Office 205-721-7185 at any hour day or night.

In case of an emergency regarding a Florida trainee's family, the daytime number is 407-267-3184. The phone at Howard Johnson's is 407-267-7900

MAIL can be received at the following address:

IN ALABAMA:

NAME. DATE REGISTERED SPACE CAMP (or SPACE ACADEMY) **One Tranquility Base** Huntsville, AL 35807

IN FLORIDA: NAME, DATE REGISTERED U.S. SPACE CAMP P.O. Box 2726 Titusville, FL 32781

Please allow four to five days for mail delivery from more than 100 miles away. Also, please put the date of the session for which the person is registered on the envelope for timely deliverv.

MONEY TRANSFER—Trainees who need emergency funds may receive cash advances. Parent/guardian may use a credit card to provide cash to the trainee. For the Alabama program, phone 205-721-7185. For the Florida program, phone 407-267-3184.

STAYING OVER?-Consult the appropriate section in this booklet for your program's start and conclusion times.

Oftentimes, airline and bus schedules require trainees to arrive early or leave late. Counselor supervision, meals and lodging are available at the following rate:

- \$20 per day (no overnight accommodations). Consult your transportation form for applicable times.
- If you need to stay overnight, a fee of \$60.

All early-arrival or late-departure charges are payable four weeks before arrival.

REFUNDS—Should it become necessary to cancel registration, a portion of the tuition is refunded on the following schedule:

- 80 percent of the fee is returned if written notice is received four weeks or more prior to the session start:
- 75 percent returned upon written notice received three weeks prior;
- 50 percent returned upon written notice received two weeks prior:
- Cancellation received one week or less before the opening day forfeits the tuition. Trainees who must leave Camp or Academy during training for emergency reasons or illness will be invited to return at a future date at no additional tuition. Trainees who leave for other reasons (homesickness, etc.) will receive no refund. Any refund will be issued in the same manner in which payment was made.

REGISTRATION GROUP RATES

Schools may receive special group rates for sending more than 10 persons to attend sessions in Alabama and Florida prior to June, except during the Easter period.

A 50 percent deposit is required 60 days after the reservation is made, with final payment due 60 days prior to arrival. Two weeks following the reservation, the coordinator will receive a confirmation notice with deadlines for the return of application/health forms and payment schedule.

Contact the Group Reservations Office at 1-800-63SPACE for printed information on policies and procedures.

SCOUTS EARN MERIT BADGE!

Girl Scouts and Boy Scouts can complete the requirements of the Aerospace or Space Exploration Merit Badge during Space Camp. Scouts must bring their "blue card" for Space Camp staff to sign.

SCHOLARSHIPS—Scholarships funded by corporations and individuals are matched by The Space and Rocket Center to make the programs in Alabama and Florida available to as many youngsters as possible.

Students choose the categories in which they wish to compete:

- 1) Scholastic Achievement
- 2) Ethnic Background
- 3) Financial Need

The competition is based on short essays submitted by applicants. To receive topics and entry information, write (do not phone) Scholarship Office, U.S. SPACE CAMP, The Space and Rocket Center, One Tranquility Base, Huntsville, AL 35807

Because sessions fill quickly, you might wish to consider registering while pursuing a scholarship. Should you receive a scholarship, vour tuition will be refunded. (A number of youngsters who waited last year to learn if they received a scholarship before attempting to enroll were unable to attend because sessions were filled.)

Deadlines for receipt of completed essays are Dec. 1, 1988 and April 1, 1989. Winners will be notified by the end of the respective months. Entries are not carried forward to the next competition.



THE SPACE & ROCKET CENTER

The Space Center, which established the U.S. SPACE CAMP in 1982, is America's largest showcase of space technology and is widely noted for its ''learn by doing'' exhibits related to astronaut training and rocket technology.

It provides the only public access to NASA's Marshall Space Flight Center through bus tours, and is Alabama's largest tourist attraction.

The museum includes America's only fullscale Space Shuttle model, Wally Schirra's Mercury spacecraft, the Apollo 16 spacecraft returned from lunar orbit and the Skylab space station. Also featured are the rockets developed in Huntsville that launched America's first satellite, Alan Shepard, seven crews of Apollo astronauts to the Moon, and Space Shuttles.

Other facilities open to the public include the spectacular Omnimax Theater and the new Habitat where participants in SPACE ACADEMY reside during their programs.

OTHER ATTRACTIONS: Seven miles from the Space Center is the Twickenham Historic District, with many homes dating from the 1820's and 1830's, and comprising Alabama's largest Antebellum district. The 1819 Weeden House is a popular museum. Constitution Hall Park is a half-block "living village" of reconstructed buildings where Alabama became a state in 1819. The Huntsville Depot is a transportation museum dating from the Civil War. The Huntsville Museum of Art downtown on Clinton Street adjoins the Von Braun Civic Center, named for the city's leading rocket pioneer who inspired the U.S. SPACE CAMP. Overlooking the city from atop Monte Sano mountain is the Burritt Museum which features items of local interest.

SURROUNDING AREA: To the west is Decatur, with its popular wave pool at Point Mallard along the Tennessee River. Ave Maria Grotto in Cullman is a collection of models of religious shrines built by a monk. "Ivy Green" in Florence is the childhood home of Helen Keller, and the basis of the play "The Miracle Worker". The town of Boaz features shopping centers of factory-owned outlet stores. To the north is the quaint town of Lynchburg, Tenn., home of Jack Daniels distillery.

Mileage from Huntsville to Major CitiesAtlanta 196Gatlinburg 256Birmingham 96Knoxville 216Chattanooga 105Nashville 110

ALABAMA GRADUATION

Family members are invited to participate in Huntsville graduation activities at the conclusion of the session. For a complete Family Day tour, purchase the special Family Day ticket in the museum by 8 a.m. for the special price of \$5, with children 3 and under free. You'll enjoy a tour of the museum and Space Camp Training Center where missions are in progress and experience the wonder of the spectacular Spacedome Theater. Tour NASA's Marshall Space Flight Center where the Space Station is being developed. Meet at the bus departure point outside the main lobby. Follow the signs. Best of all, see your youngsters graduate at 1 p.m. Because of the active schedule, you won't be able to visit with your youngster until after graduation is completed. (Handsome frames for certificates are available following graduation.)

(If you want to attend graduation, but do not wish to visit the museum, you may enter the graduation area at noon without charge.)

SPECIAL HOTEL AND CAR RATES: While in Huntsville, stay at the HUNTSVILLE MARRIOTT on the grounds of The Space and Rocket Center. Call the hotel at 205-830-2222 and ask about availability of the special Space Camp Family Rate for \$59 plus tax on Friday, Saturday and Sunday. Ask about specials for other nights.



Marriott

Do you need a rental car? AVIS RENT A CAR has a special rate available from noon Thursday to noon Monday, two-night minimum, unlimited mileage, for cars picked up and returned to the Huntsville Airport. To receive the special rate, phone AVIS toll-free at 1-800-331-1212 and ask for discount number A/B 463300. Or phone Avis in Huntsville at 205-772-9301.





July 1989 is Space Celebration month at The Space & Rocket Center.

For additional information on visiting Alabama during 1989, the year of Alabama Reunion, phone 1-800-ALABAMA.

FLORIDA GRADUATION

Central Florida is the nation's top family vacation destination, with many popular attractions close to the Space Coast area. Families visiting the Orlando-Disney World area are encouraged to stay at Holiday Inn Main Gate East in Kissimmee (phone 1-800-523-2309). Those planning to stay overnight near trainees in Titusville should contact the Howard Johnson Lodge at 407-267-7900. Families will enjoy a visit to Kennedy Space Center's Spaceport USA and bus tour of NASA. Space Camp Graduation in the beautiful Galaxy theater at Spaceport is scheduled from 9 to 10 a.m. Before leaving the Space Coast area, plan to visit the Space Camp gift shop for a complete selection of flightsuits. clothing, mission insignias, books and videos.

NEW FOR 1990: The hall of fame for America's astronauts is scheduled to open early in the year to showcase the stories and personal mementoes of the nation's top space travelers. The hall of fame organized by the original Mercury astronauts will share the Space Camp complex at the entrance to Kennedy Space Center.







Training Center adjoins museum in Huntsville.

ANSWERS TO FREQUENTLY ASKED QUESTIONS

Who can attend?

Any student from grade 4 and above who is recommended by a classroom or science teacher.

When should I register?

Early registration is strongly recommended. Sessions are filled on a first-come basis. Easter holidays and summer programs fill quickly.

How can I register?

The quickest way is for your parent/ guardian to reserve a session with a credit card. Phone the Reservation Center at 1-800-63/SPACE or 205-837-3400. Or send the completed form with your check.

Can I get credit for missing school?

Many schools recognizing the special educational benefits of the program have accredited the program. Consult your principal, teacher, or counselor and have them contact U.S. SPACE CAMP and SPACE ACADEMY about credit.

Will I be met at the airport?

A badged team leader will meet your flight at the gate. Transportation to the airport gate for your return flight home is also provided.

Where will I stay? Eat?

Supervised, lodging and cafeteria facilities are included in your tuition. See section on early arrival, late departure.

Who are the counselors?

The team leaders are highly motivated and well trained young adults from universities throughout the U.S. Most have earned or are seeking college degrees in engineering, science or education.

How do most people hear about the programs?

Referrals from previous participants, science teachers, the National Science Teachers Association, the movie ''Spacecamp,'' cover story in *Boys' Life* magazine, science museums.

A space station environment will surround Space Academy trainees who live in the new \$4 million Habitat during the 1989 season. The unique structure features individual compartments for six persons with built-in sleep stations, computer work area and storage compartments. The four floors open onto a central atrium which will be used for registration, assembly and graduation.

Designers incorporated many aerospace concepts in the 328-foot Habitat. For example, it has hatches for doors, ports instead of windows, and benches instead of chairs (which would float in space), which extend the atmosphere of living and working in a weightless environment.





The Space & Rocket Center One Tranquility Base Huntsville, AL 35807-0680

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