

Aviation Technology

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Training the
world's aviation
professionals

BROWARDSM
COLLEGE

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A Transportation Technology program



Aviation Institute

Where careers take flight



Offering Aviation programs since 1963

The Aviation Institute, established in 1966, links Broward College's Judson A. Samuels South Campus with North Perry Airport. Our beautiful complex is the perfect environment in which to start a career in aviation.

Our students receive industry training from highly skilled instructors at an affordable cost. Students are surrounded by aviation professionals and experience flight and maintenance operations in action, and have all the facilities of a full-service college campus.

Broward College's Aviation Institute is the only public facility in Broward County dedicated to the training of aviation professionals. The Institute offers:

- on-site flight training
- a 7,000 sq. ft. hangar
- flight lab and state-of-the-art flight training devices
- tower, radar, enroute air traffic control simulators
- aircraft maintenance training equipment
- computer-based testing
- online courses and spacious workshops
- staff examiners to help prepare students for aviation careers in the 21st century.

Judson A. Samuels South Campus
7200 Pines Blvd., Building 99
Pembroke Pines, FL 33024
954-201-8080 / 1-800-839-6183

Associate degrees and certifications

- **Professional Pilot Technology** prepares students to complete a college degree along with the FAA certifications needed to work as a commercial pilot.
- **Aviation Operations** provides the necessary foundation for students to pursue a bachelor's degree in management and various entry-level industry positions.
- **Airport Operations Management** prepares students for managerial and operational aspects of airports.
- **Air Traffic Control** is a program developed by industry professionals, following FAA standards, to obtain knowledge and skills to become an air traffic controller.
- **Aviation Maintenance Management** gives students the skills and confidence to become a highly qualified technician in the competitive aviation maintenance field.
- **Airport Management certificate** provides insight into the day-to-day operational/managerial aspects of the airport environment and expands upon several topics concerning airport operations.
- **Avionics certificate program** prepares students for employment as avionics technicians.
- **Airframe and powerplant maintenance certificates** are FAA-approved programs for students to attain airframe and powerplant licenses and move directly into the industry.
- **Commercial Flight Operations certificate** provides instruction on safe and efficient work practices, FAA pilot certification procedures, aircraft systems and components, and employability skills.



Professional Pilot

Associate in Science



Professional Pilot Technology

Broward College offers a complete program of aviation ground school and flight training to meet the requirements of the Federal Aviation Administration (FAA) for the private pilot certificate, instrument rating, commercial pilot certificate, multi-engine rating and flight instructor certifications. Broward College is an approved institution authorized to certify its graduates for an Airline Transport Pilot (ATP) certificate with reduced aeronautical experience. A.S. graduates qualify at 1250 hours as opposed to 1500 hours.

- Private Pilot Certificate
- Instrument Rating
- Commercial Pilot Certificate
- Multi-Engine Rating
- Certified Flight Instructor
- Professional Pilot A.S. degree

All training is done in our state-of-the-art facility where students are provided with the academic and technical skills necessary to qualify for a position as a professional pilot. Program graduates completing their flight instructor and multi-engine ratings are eligible to be interviewed to become paid flight instructors for Broward College's flight program.



Eligibility for enrollment

- Students must be admitted to Broward College and pass any placement testing necessary.
- To be admitted to the college a student must be at least 17 years of age, a high school graduate, and undergo a Federal Aviation Administration (FAA) third-class medical examination. A first-class medical examination is recommended.
- International students are required to fill out an online application for the Transportation Security Administration before starting flight training. An additional fee applies.

The pilot ground school is fully approved by the FAA and the College is certified as an FAA Air Agency under Federal Aviation Regulations Part 141.

Broward College is an approved site by Veterans Affairs (VA) to offer degrees and certificate programs, which includes professional pilot technology. For information on benefits email veterans@broward.edu or call 954-201-7627.



Professional Pilot

Associate in Science



FIRST-YEAR COURSES

*ATT1100	Aeronautical Science	3
*ASC1100	Navigational Science I	3
*ATF1100	Primary Flight (4)	3
ASC1010	History of Aviation	3
•CGS1060C	Computer/Internet Literacy or Aviation Elective (3)	3
TOTAL CREDIT HOURS		15
*ASC1210	Aviation Weather	3
*ASC2110	Navigational Science II	3
*ATT2120	Instrument Flight Theory	3
*ATF2305	Commercial Flight I (4)	3
*ATF2600	Flight Simulator Training	1
TOTAL CREDIT HOURS		13
ELECTIVE	Humanities/Fine Arts	3
ELECTIVE	Social/Behavioral Sciences or	
+ECO2013	Principles of Economics	3
TOTAL CREDIT HOURS		6

SECOND-YEAR COURSES

*ASC1610	Aircraft Engines/Structures/ Systems	3
*ATF2204	Commercial Flight II (4)	3
*ATT2110	Commercial Flight Theory	3
*MAC1105	College Algebra <u>or</u>	
*MAC2233	Business Calculus <u>or</u>	
*MGF1106	Mathematics for Liberal Arts I <u>or</u>	
*MGF1107	Mathematics for Liberal Arts II	3
*ENC1101	Composition I	3
TOTAL CREDIT HOURS		15
*ATF2205	Commercial Flight III (4)	3
ELECTIVE	Aviation (1)	2
*ASC2870	Aviation Safety	3
*PHY1001	Applied Physics (2)	3
*PHY1001L	Applied Physics Lab (2)	1
SPC1024	Intro. to Speech <u>or</u>	
SPC1608	Intro. to Public Speaking	3
TOTAL CREDIT HOURS		15
TOTAL PROGRAM HOURS		64

Credit for experiential learning: Students who possess FAA certification or ratings should request an experiential credit application before enrolling in the Professional Pilot program.

- * Requires a prerequisite or co-requisite or proper score on placement test. See course description in college catalog or online.
 - CGS 1060C must be completed within the first 15 hours of Broward College coursework. Students who successfully complete the Basic Student technology literacy test may select from the following list of courses to complete the degree requirement: ASC 1550 (if not included in program), ASC 2472, AVM1440, ASC2320, ASC1210.
 - + ECO 2013 and MAC 2233 are recommended for students transferring to Florida Atlantic University (FAU), Bachelor of Business Administration, major in Management (BBA). Students desiring to transfer to the BBA program may complete the following courses at Broward College: ENC 1102 Composition II, STA 2023 Intro. to Statistics, ACG 2001 Accounting I, ACG 2011 Accounting II, and ECO 2023 Economics II.
- (1) Students may select ATF 2500 Flight Instructor Training, ATF 2400 Multi-Engine with ATF 2630 Multi-Engine Simulator, or select from Operations programs. For other options, contact the department.
 - (1) PHY 2053 General Physics I and PHY 2053L General Physics I Lab may be substituted by students with the appropriate math prerequisites. Some universities require general physics.
 - (3) Students who successfully complete the Basic Student Technology Literacy test may select from: AVM 1440 Airport/Airline Security, AVM 2410 Airport Management, ASC 1550 Aerodynamics, AVM 2450 Airport Planning and Design, ASC 2320 Aviation Law and Regulations, AVM 2510 Airline Management, or AVM 2301 General Aviation Marketing and Management to complete the degree requirement.
 - (4) Flight training fees apply.

It is strongly recommended that students see an academic advisor or counselor every term.

Operations Aviation / Airport

Associate in Science /
Certificate



Aviation Operations

The Associate in Science degree in Aviation Operations is designed for individuals whose career objectives include staff, operational and management positions within the aviation industry. The program also provides the foundation to pursue a bachelor's degree in management.



Airport Operations Management

The Airport Operations Management A.S. degree prepares students for an operations agent position. Operations agents are responsible for airfield inspections, communications and the emergency centers of airports. They apply regulatory requirements of the airport and the security, safety and legal concerns of aviation on the ground. Students can gain real world experience of the day-to-day activities in the field while learning the certification requirements of airports.

Airport Management Certificate

Airport Management certificate is offered as a concentration of specific aviation operations and airport operations management courses combined with one business course to prepare students who are seeking employment in the airport operations field. The certificate provides the insight into the day-to-day operational/managerial aspects of the airport environment and expands upon several topics concerning airport operations to include investigation of incidents and accidents, aviation safety on the ground, human factors in aviation, hazardous materials and the identification of hazards, passenger safety, land use, wildlife control, airport security, and overall working knowledge of airports.

COURSES

AVM2450	Airport Planning and Design	3
ASC2870	Aviation Safety	3
AVM1440	Airport and Airline Security	3
AVM2410	Airport Management.	3
ASC2320	Aviation Law and Regulations	3
GEB2430	Business Ethics.	1
TOTAL CREDIT HOURS		16

Many of our hands-on classes will take place in real airport work environments. The Airport Operations degree program has an outstanding internship program with Fort Lauderdale/Hollywood International Airport (FLL) and Miami International Airport (MIA).



Operations Aviation / Airport

Associate in Science



Aviation Operations

FIRST-YEAR COURSES

*ATT1100	Aeronautical Science	3
*ASC1100	Navigational Science I	3
*ENC1101	Composition I	3
SPC1024	Intro. to Speech <u>or</u>	
SPC1608	Intro to Public Speaking	3
*CGS1060C	Computer/Internet Literacy <u>or</u> Aviation Elective	3
	TOTAL CREDIT HOURS	15

AVM2301	General Aviation Marketing and Management	3
*ENC1102	Composition II <u>or</u>	
*ENC2210	Professional & Technical Writing.	3
ASC1010	History of Aviation	3
AVM2410	Airport Management	3
*MAC1105	College Algebra (1).	3
	TOTAL CREDIT HOURS	15

POS2041	National Government	3
ELECTIVE	Humanities / Fine Arts	3
	TOTAL CREDIT HOURS	6

SECOND-YEAR COURSES

AVM2510	Airline Management	3
*ASC1210	Aviation Weather	3
ECO2013	Principles of Economics I (2)	3
ACG2001	Principles of Accounting I (2)	3
*STA2023	Elementary Statistics	3
	TOTAL CREDIT HOURS	15

*ECO2023	Principles of Economics II (2)	3
*ACG2011	Principles of Accounting II (2)	3
*PHY1001	Applied Physics (3).	3
*PHY1001L	Applied Physics Lab (3)	1
ASC2870	Aviation Safety	3
	TOTAL CREDIT HOURS	15

TOTAL PROGRAM HOURS 64

Airport Operations Management

FIRST-YEAR COURSES

*ATT1100	Aeronautical Science	3
*ASC1100	Navigational Science I	3
*ENC1101	Composition I	3
SPC1024	Intro. to Speech <u>or</u>	
SPC1608	Intro to Public Speaking	3
*CGS1060C	Computer/Internet Literacy <u>or</u> Aviation Elective	3
	TOTAL CREDIT HOURS	15

AVM2301	General Aviation Marketing and Management	3
BUL2241	Business Law I	3
OST2335	Communications in the Workforce <u>or</u>	
*ENC2210	Professional and Technical Writing.	3
AVM2410	Airport Management	3
*ASC2870	Aviation Safety	3
	TOTAL CREDIT HOURS	15

*AVM1940	A/P Ops Internship I	3
	TOTAL CREDIT HOURS	3

SECOND-YEAR COURSES

AVM2510	Airline Management	3
ACG2001	Principles of Accounting I	3
AVM1440	Airport / Airline Security	3
ELECTIVE	Humanities/Fine Arts	3
AVM2450	Airport Planning & Design	3
	TOTAL CREDIT HOURS	15

*AVM2941	A/P Ops Internship II.	3
ECO2013	Principles of Economics I	3
ASC2320	Aviation Law and Regulations	3
PHY1001	Applied Physics.	3
PHY1001L	Applied Physics Lab	1
*MAC1105	College Algebra <u>or</u>	
*MAC2233	Business Calculus <u>or</u>	
*MGF1106	Mathematics for Liberal Arts I <u>or</u>	
*MGF1107	Mathematics for Liberal Arts II	3
	TOTAL CREDIT HOURS	16

TOTAL PROGRAM HOURS 64

* Requires a prerequisite or co-requisite or proper score on placement test. See course description in college catalog or online.
 • CGS 1060C must be completed within the first 15 hours of Broward College coursework. Students who successfully complete the Basic Student Technology literacy test may select from the following list of courses to complete the degree requirement: ASC 1550 Aerodynamics, ASC 2470 Human Factors in Flight and ATC.
 (2) Students interested in flight operations may substitute the following courses for those marked with (2): ASC 2110, ATT 2120, ATT 2110, or any other flight course.
 (3) PHY 2053 General Physics I and PHY 2053L General Physics I Lab may be substituted by students who have the appropriate math prerequisites. Some universities require General Physics.

Air Traffic Control

Associate in Applied Science



Air Traffic Control

The Air Traffic Control program is designed to provide qualified college educated applicants to fill developmental air traffic control specialist (ATCS) positions. Broward College is one of 36 colleges nationwide selected by the FAA to participate in the Air Traffic Collegiate Training Initiative (AT-CTI). All ATC training is done in our state-of-the-art facility at the Miramar Town Center campus (2050 Civic Center Place) where the college has a \$1.5 million simulation laboratory that includes Terminal Radar, Enroute Radar, and Tower simulators providing students with the technical and academic skills necessary to succeed in an air traffic control career.

Associate in Applied Science degree in Air Traffic Control

The Associate in Applied Science (A.A.S.) degree in Air Traffic Control is part of the Air Traffic Collegiate Training Initiative (AT-CTI) program. The program, developed by industry Air Traffic Operator professionals, follows FAA standards for knowledge and skills to assure success in the field.

To meet future training needs the FAA requires the assistance of designated college programs. These college programs provide initial training and reduce cost and time for the FAA.

Currently the FAA employs more than 14,000 Air Traffic Controllers. Each day they safely guide over 50,000 aircraft and provide air navigation services in U.S. domestic and international oceanic airspace. Due to the increasing number of retiring air traffic controllers, the FAA will need to hire and train more than 15,000 new ATC's over the next ten years.

Requirements for Air Traffic Control Specialists (ATCS) Positions

Broward College has been selected to offer FAA approved Air Traffic Collegiate Training Initiative (AT-CTI) program. The program is designed to provide qualified applicants to fill developmental air traffic control specialist positions.

- Must have completed a 4-year degree or combination of college and work experience
- Must be a US citizen at the time of employment
- Not have reached the age of 31
- Pass a Class II Medical examination for ATCS
- Pass a security/background check
- Pass a Biographical Questionnaire
- Pass the FAA Pre-Employment test (AT-SAT) with a minimum score of 70
- Speak English clearly
- Complete an interview and psychological test



Air Traffic Control

Associate in Applied Science



FIRST-YEAR COURSES

*ATT1100	Aeronautical Science	3
*ASC1100	Navigational Science	3
*ATT1810	Environment of the ATC	3
*ATT2820	Introduction to ATC	3
•CGS1060C	Computer/Internet Literacy or Aviation Elective.	3
	TOTAL CREDIT HOURS	15
ASC1210	Aviation Weather.	3
ASC1610	Aircraft Engines, Structures or	
ASC1550	Aerodynamics	3
ATT2822C	VFR Tower Operations w/Lab	4
ELECTIVE	Aviation Elective (ASC or AVM).	3
MAT1033	Intermediate Algebra (1)	3
	TOTAL CREDIT HOURS	16
ATT2821C	ATC Radar Procedure with Lab.	4
ELECTIVE	Aviation Elective (ASC or AVM)	3
ASC2472	Human Factors in Flight & ATC.	3
SPC1024	Intro. to Speech Communications	3
ELECTIVE	Humanities/Fine Arts	3
	TOTAL CREDIT HOURS	16

SECOND-YEAR COURSES

ATT2824C	ATC Enroute Operations w/Lab.	4
ASC2870	Aviation Safety	3
ELECTIVE	Aviation Elective (ASC or AVM)	3
ENC1101	English Composition I.	3
ELECTIVE	Social Behavioral Science	3
ATT2890	ATC Capstone Project	1
	TOTAL CREDIT HOURS	17

TOTAL PROGRAM HOURS 64

AVIATION ELECTIVE COURSES

ASC 2320	Aviation Law and Regulations	3
ASC 1010	Aviation History	3
AVM 1440	Airport/Airline Security	3
AVM 1940	Airport Operations Internship I.	3
AVM 2941	Airport Operations Internship II	3
AVM 2540	Airport Planning and Design	3
AVM 2410	Airport Management.	3
AVM 2510	Airline Management	3



* Requires a prerequisite or co-requisite or proper score on placement test. See course description in college catalog or online.

•CGS 1060C must be completed within the first 15 hours of Broward College coursework. Students who successfully complete the Basic Student Technology literacy test may select from the Aviation elective course list to complete the degree requirement.

(1) MAC 1105 may be substituted for MAT 1033 if student plans to transfer to upper-level college or university.

NOTE: The College's AT-CTI program is tailored for and approved by the Federal Aviation Administration (FAA). With this approval, we are responsible for screening and providing initial training for future FAA Air Traffic Controllers. In support of the FAA's performance standards, the ATC program of the Aviation Department is requiring all students enrolled in the AT-CTI program to maintain a minimum grade of a B (82%) or higher in all ATC core courses. This does not mean you cannot graduate with an Associate in Applied Science degree in Air Traffic Control, but it does mean you will not be recommended by the faculty or administration of Broward College's Air Traffic Collegiate Training Initiative to the FAA.

It is strongly recommended that students see an academic advisor or counselor every term.

Aviation Maintenance

Certificate programs



Maintenance Technician: Airframe and Powerplant

The Aircraft Maintenance Technician certificates (airframe and powerplant) are provided in 400-hour increments:

General	400
Airframe I	400
Airframe II	400
Powerplant I	400
Powerplant II	<u>400</u>
TOTAL HOURS	2,000

Courses are designed to give students the skills, knowledge and confidence they need to become a highly qualified technician in the competitive marketplace of aviation maintenance. Students receive training to develop the manipulative skills and technical knowledge to perform maintenance and repairs on aircraft engines (reciprocating and turbine), and airframe components, systems and structures.

In just 12 months, students may obtain FAA certification as either an airframe or powerplant maintenance technician. The additional FAA certification can be obtained in eight additional months.

Eligibility for Enrollment

Students with a high school diploma or GED, admitted to Broward College, are eligible to enroll. Upon graduation, the student must be at least 18 years of age, able to read, write, speak and understand the English language, and pass a basic skills test.

All new applicants are admitted into the general portion of the program. Classes are offered during the fall, winter and summer terms.

Full-time students will attend classes 26.5 hours per week during the fall and winter semesters. The summer semester will require students to attend 32.5 hours per week. This is a rigorous program and attendance hours are mandated by the Federal Aviation Administration (FAA).

Completion of the certificate programs may convert into college credit (30 credits per license) toward an Associate in Science degree in Aviation Maintenance Management. These courses are offered in 400-hour blocks and require special permission before registration.

BLOCK 1 - GENERAL

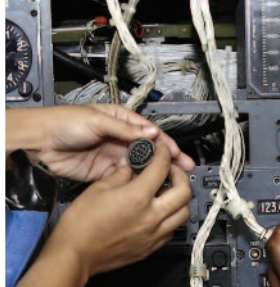
	Hours
AMT0070C Applied Mathematics	21.00
AMT0090C Basic Physics	26.25
AMT0010C Aircraft Drawings	21.00
AMT0050C Ground Operations and Servicing	31.50
AMT0040C Materials and Processes	84.00
AMT0030C Fluid Lines and Fittings	26.25
AMT0081C FAR's, Forms, Privileges	42.00
AMT0020C Weight and Balance	32.50
AMT0060C Corrosion Control	26.25
AMT0091C Basic Electricity	<u>89.25</u>
TOTAL HOURS	400

This program complies with FAR Part 147 and is FAA certified.



Aviation Maintenance

Certificate programs



Airframe Maintenance Technician

The Airframe Maintenance Technician certificate program leads to the Federal Aviation Administration airframe certificate. The course of study complies with FAR Part 147 and the program is FAA certified. Completion of the program is contingent upon students passing the Test of Adult Basic Education in math, English and reading. The TABE must be taken within six weeks of enrollment into the general portion of the program.

BLOCK II - AIRFRAME I

AMT0130C	Sheetmetal & Non-Metallic	157
AMT0110C	Wood Structures	11
AMT0115C	Aircraft Covering	12
AMT0120C	Aircraft Finishes	30
AMT0140C	Welding	40
AMT0155C	Assembly & Rigging	65
AMT0200C	Landing Gear Systems	<u>85</u>
TOTAL HOURS		400

BLOCK III - AIRFRAME II

AMT0160C	Airframe Inspection	20
AMT0210C	Hydraulic Pneumatics Systems . . .	75
AMT0220C	Cabin Atmosphere	50
AMT0230C	Aircraft Instrument Systems	25
AMT0240C	Communication / Navigation Systems	30
AMT0250C	Aircraft Fuel Systems	40
AMT0260C	Aircraft Electrical Systems	100
AMT0270C	Position & Warning	30
AMT0285C	Ice, Rain & Fire Protection	<u>30</u>
TOTAL HOURS		400

Powerplant Maintenance Technician

The Powerplant Maintenance Technician certificate program leads to the Federal Aviation Administration powerplant certificate. The course of study complies with FAR Part 147 and the program is FAA certified. Completion of the program is contingent upon students passing the Test of Adult Basic Education in math, English and reading. The TABE must be taken within six weeks of enrollment into the General portion of the program.

BLOCK II - POWERPLANT I

AMT0300C	Reciprocating Engines	152.25
AMT0310C	Turbine Engines	147.00
AMT0400C	Engine Instrument Systems	31.50
AMT0420C	Engine Electrical and APU's	<u>69.25</u>
TOTAL HOURS		400

BLOCK III - POWERPLANT II

AMT0460C	Induction System	26.25
AMT0450C	Engine Fuel System	21.00
AMT0451C	Fuel Metering System	63.00
AMT0440C	Ignition System	84.00
AMT0435C	Lubrication System	42.00
AMT0475C	Engine Cooling and Exhaust	26.25
AMT0410C	Engine Fire Protection	15.75
AMT0490C	Propellers and Induction Fans	89.25
AMT0320C	Engine Inspection	<u>32.50</u>
TOTAL HOURS		400

Aviation Maintenance

Certificate programs /
Associate degrees



Avionics Technician

The Aviation Institute is proud to offer a 720-hour one-year certificate program in Avionics.

This innovative program prepares students for employment as avionics technicians, a position in great demand. State-of-the-art NIDA electronics training equipment is utilized for this program, and FCC, and NCATT AET testing is available on site. Avionics systems testing accomplished utilizing B727 aircraft.

This is a blended course that meets twice weekly on campus, and three times a week online. Availability to a computer and the Internet is required. On-campus classes will be dedicated to the NIDA electronics courseware labs, aircraft visits and projects.

Prerequisites for admission:

- Airframe and Powerplant certificate/license or
- Previous electronics training or
- Previous documented avionics industry work experience

BLOCK I

AVS0090C	Avionics Fundamentals	180
AVS0091C	Avionics Installer	<u>180</u>
TOTAL HOURS		360

BLOCK II

AVS0092C	Avionics Communication Systems	180
AVS0093C	Navigation/Support Systems Items	<u>180</u>
TOTAL HOURS		360
TOTAL PROGRAM HOURS		720

Aviation Maintenance Management Associate in Science degree

Students seeking an A.S. degree in Aviation Maintenance Management must complete the course requirements for the airframe maintenance technician and powerplant maintenance technician certificates, and/or possess a valid FAA A & P license.

STUDENTS MUST COMPLETE THE FOLLOWING 22 ADDITIONAL CREDIT HOURS

*ENC1101	English Composition	3
CGS1060C	Computer and Internet Literacy** . .	3
SPC1024	Intro. to Speech <u>or</u>	
SPC1608	Intro. to Public Speaking	3
♦ELECTIVE	Humanities/Fine Arts	3
♦ELECTIVE	Social/Behavioral Sciences	3
♦ELECTIVE	General Education Science	3
♦ELECTIVE	General Education Mathematics . . .	3
♦ELECTIVE	Business	2
	<i>Select two from the following:</i>	
	GEB2430 Bus. Ethics.	1
	OST1330 Bus. English.	1
	OST2053 Job Search.	1
	BCT1767 OSHA Standards.	<u>1</u>

TOTAL SEMESTER CREDITS 23

TOTAL PROGRAM HOURS 83

* Requires a prerequisite or co-requisite or proper score on placement test. See course description in college catalog or online.

♦ General Educations courses must be selected from the list of A.S. degree courses found in the College Catalog.

** CGS 1060C must be completed within the first 15 hours of Broward College coursework. Students who successfully complete basic student technology literacy test may select between ATT 1100 or ASC 1010 to complete degree requirement.



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