



# Mission Valley ROP

## Career Technical Training Center

### 2019–2020 High School Courses



## Courses at ROP Center

### Auto Body Painting and Refinishing 1 & 2 (74020/74021)

Certified Instructor will teach introduction to Auto Body and Refinishing. Identification of the use of tools, materials and techniques needed for entry level position.

### Automotive Technology 1 & 2 (74040/74041)

#### *Chabot College Credit for Year 1*

General auto repair, brakes, steering and suspension, electrical systems, engine performance. Students receive hands-on experience in auto shop operations, tool usage, safety procedures, equipment operation and customer service. Introduction to hybrid "green" technology. Must earn a B- or better in Auto Tech 1 to take Auto Tech 2.

### Careers in Education 1 & 2 (74110/74112)

#### *Chabot College Credit for Year 1 | Ohlone College Credit for Years 1 & 2*

Discover opportunities available in Early Childhood profession. Explore principles of integrated academic and technical skills, communicate and collaborate with diverse audiences, demonstrate creativity and innovation, develop personal, educational and career goals. Proof of current TB test and internship required.

### Civil Engineering & Architecture -PLTW (74120)

#### *UC "g" Credit*

In this PLTW capstone course, students learn about various aspects of civil engineering and architecture and apply their knowledge to the design and development of residential and commercial properties and structures. Students learn hand drafting, make architectural models and use 3D design software to design and document solutions for major course projects. Students also are given the opportunity to present solutions to their peers and members of a professional community of engineering and architects. This course is designed for 11th and 12th grade students only.

### Computer Animation 1 & 2 (74126/74127)

#### *Ohlone College Credit for Year 1*

Create animation in 2D and 3D for web, TV and film. Collaborate with animators, videographers and sound designers and learn how real productions come together. Learn Adobe Flash and 3DS Max.

### Computer Science Principles/ Digital Electronics (74214/74212)

#### *UC "g" Credit for both semesters*

This unique course combines one semester of Computer Science Principles and one semester of Digital Electronics using the Project Lead the Way (PLTW) curriculum. Students study topics such as Web Development, Python® programming, drone programming, Ohm's Law, combinational / sequential logic, programmable logic devices and more. Allowing students to survey different engineering disciplines before beginning post-secondary education or careers.

### Construction Technology 1 & 2 (74150/74151)

#### *Chabot College Credit*

Train for entry-level employment in residential and commercial construction; training and hands on projects in carpentry, electrical, plumbing; power tool use and safety. Introduction to "green" construction including roofing, kitchen and bath remodeling, and energy efficient building materials.

### Digital Sound Design 1, 2 (74260/74261)

Learn microphones, synthesizers, audio mixers and sound systems. Create music sound effects, sound effects for video, animation and CDs using Digidesign Pro Tools, Logic Cubase and Adobe Audition.

### Digital Video Arts Production 1, 2 (74230/74231)

#### *UC "P" Credit*

Video production including camera work, editing and the production process of short fiction, documentary, commercial and "live TV"; analyze film scenes and sequences, develop production management skills. Produce videos from script writing to final edit. (Recommend prior class in fine arts, computer applications or digital graphics.)

### Emergency Medical Responder (EMR) (74315)

#### *Chabot, Las Positas or Mission College Credit*

Students in this course will learn EMR skills such as: first responder well-being, legal and ethical issues, lifting and moving patients, patient assessment, medical emergencies, EMS system and operations, special patient considerations, and managing multi-casualty incidents. Students who complete the EMR program will receive an American Heart Association CPR, FEMA certification and ASHI (American Health & Safety Institute) certificate.

### Fire Technology (74310)

#### *Las Positas or Mission College Credit*

Introductory course for careers in fire service; firefighting tactics/ strategies, physical agility, fire safety, ladder, hose and nozzle operations, tools, equipment, and fire prevention. American Heart Association CPR card and FEMA certification available. Open to juniors and seniors; sophomores with instructor approval.

### Game Design/Interactive Media Arts 1, 2 (74350)

#### *Ohlone College Credit for Year 1*

Recommend 2 years of computer graphics or animation experience. Learn to create 3D interactive games, simulations, and mobile applications using 3DS Max, Unreal 3 and Photoshop. Students will develop skills in level design, modeling, digital sculpting, character design, programming, animation and scripting.

### Law Enforcement/ Homeland Security 1, 2 (74400/74401)

#### *Ohlone College Credit for Year 1*

Students will learn legal vocabulary, general knowledge of the law, search and seizure procedures, law of arrest, judicial systems, specialized police practices and improvement in written and oral communication. Explore careers within the criminal justice system and job search procedures. Field trips to crime labs, incarceration facilities and law enforcement agencies.

### Medical Assisting (74410)

#### *UC "g" Credit*

The purpose of this course is to provide related instruction and community training for students preparing for jobs in the healthcare industry as a Medical Assistant. Students will receive heavy academic instruction in human anatomy. This course will provide students with a fundamental understanding of the MA and their role in health-related fields, thus aiding them in career decisions.

### Honors Medical Interventions/ Biomedical Innovation- PLTW (74218/74219)

#### *UC "d" Credit for Med. Int. | UC "g" Credit for Biomed. Innov | Cal State East Bay Credit (When Coupled with a Passing Score on the CLEP Biology Exam)*

Prerequisites: Three years of high school science or completed the PBS/HBS course. First semester, students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Through cases, students learn about a range of interventions related to immunology, cancer biology, surgery, genetics, pharmacology, medical devices, and diagnostics. Second semester, students address the most pressing health challenges of the 21st century in public health, biomedical engineering, to clinical medicine and physiology. Students have the opportunity to either work at an internship or on a research project.

### Motion Graphics 1, 2 (74424/74426)

#### *UC "P" Credit for Year 1*

Learn how to create posters, original print, 2D & 3D animation, real time animation, retouch & manipulate photographs, game graphics, all created with cutting edge tools such as Adobe CS6, Photoshop, Illustrator, After Effects, Flash, large format printing, scanning and more.

### Nursing Assistant (74430)

#### *UC "g" Credit*

Prerequisite Legal photo identification. Career prep for Nursing/Health Care with personal patient care, systems review, safety principles, infection control, HIPAA, restorative care, body mechanics, nutrition, vital signs, Home and Acute Care. Internship at skilled nursing facilities, Assisted Living, Home Care (non-medical), and Acute Care.

### Pharmacy Technician (74440)

#### *UC "g" Credit*

Career prep for pharmacy technician in pharmaceutical field; process prescriptions, inventory, compounding, making intravenous medications and other duties under direction of pharmacist. Internship opportunity for students that meet all class requirements.

### Principles of Biomedical Science/ Human Body Systems PLTW (74216/74217)

#### *UC "d" Credit for both semesters | Cal State East Bay Credit (when coupled with a passing score on the CLEP Biology Exam)*

First semester students will explore concepts of biology and medicine to determine factors that led to the death of a fictional person. Activities and projects introduce students to human physiology, basic biology, immunology, microbiology, medicine, and research processes while allowing them to design their own experiments to solve biomedical problems. Second semester students examine the interactions of human body systems and take on roles of biomedical professionals to solve real-world medical cases.

### Sports Therapy 1 & 2 (74470/74471)

#### *UC "g" Credit | Chabot College Credit for Year 1*

This course is for students interested in the areas of athletic training, physical therapy, occupational therapy and strength and conditioning. Areas covered include: anatomy/physiology, emergency procedures, injury recognition, evaluation and treatment, taping and wrapping. Students will earn CPR certification and an internship is required.