



# Mission Valley ROP

## Career Technical Training Center

### 2021–2022 High School Courses



## Courses at ROP Center

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

This course offers an introduction to Auto Body and Refinishing. Students will learn from a Certified Instructor and use industry-standard techniques, materials, and tools, including a state-of-the-art, heated downdraft paint booth.

### **Automotive Technology 1, 2 (74040/74041)**

*Chabot College Credit for Year 1*

This course offers hands-on experience in auto shop operations, tool usage, safety procedures, equipment operation, and customer service; skills learned include general auto repair, brakes, steering and suspension, electrical systems, and engine performance. Students will have the opportunity to earn many industry level certifications. Must earn a B- or better in Automotive Technology 1 to take Automotive Technology 2.

### **Careers in Education 1, 2 (74110/74112)**

*UC "g" Credit for Year 1 | Ohlone College Credit for Years 1 & 2 | Chabot College Credit for Year 1*

Discover opportunities available in the 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*

*This course is designed for 11th and 12th grade students.*

In this PLTW capstone course, students learn about civil engineering and architecture and apply their knowledge to the design and development of residential and commercial properties and structures. Students learn hand drafting, build architectural models and use 3D design software. Students present designs to their peers and members of a professional community of engineers and architects.

### **Computer Animation 1, 2 (74126/74127)**

*UC "f" credit | Ohlone College Credit for Year 1*

Learn to create 3D interactive games, simulations using 3DS Max, Unreal 4, and 2D game engines. Students will develop skills in level design, modeling, character design, animation, and scripting.

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

*UC "g" Credit*

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. This course will allow students to survey different engineering disciplines before beginning post-secondary education or starting a career.

### **Construction Technology 1, 2 (74150/74151)**

*Chabot College Credit*

This course prepares students for entry-level employment in residential and commercial construction. Students receive hands-on training in carpentry, electrical, and plumbing, including roofing, kitchen and bath remodeling, and energy-efficient building materials.

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

*UC "f" Credit | Ohlone College Credit*

Students learn 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 scriptwriting to final edit. (Recommend prior class in fine arts, computer applications, or digital graphics.)

### **Emergency Medical Responder (74315)**

*Chabot, Las Positas, 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, and managing multi-casualty incidents. Students who complete the EMR program earn an American Heart Association CPR card and ASHI (American Health & Safety Institute) certificate.

### **Fire Technology (74310)**

*UC "f" Credit | Las Positas, Mission College Credit*

*This course is open to 11th and 12th grade students.*

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 available.

### **Game Design/Interactive Media Arts (74350/74351)**

*UC "f" Credit | Ohlone College Credit*

Learn to create 3D interactive games, simulations using 3DS Max, Unreal 4, and 2D game engines. Students will develop skills in level design, modeling, character design, animation, and scripting.

### **Honors Medical Interventions/ Biomedical Innovation– PLTW (74221/74222)**

*UC "d" Credit for each semester course | Ohlone College Credit*

*Prerequisites: Three years of high school science or completion of the PBS/HBS course.*

During the First semester in Honors Medical Interventions, students learn about: immunology, cancer biology, surgery, genetics, pharmacology, medical devices, and diagnostics. During the Second semester in Honors Biomedical Innovation, students learn about: public health, biomedical engineering, clinical medicine, and physiology. Students earn CPR certification and have the opportunity for work-related experience.

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

*UC "g" for Year 1 | Ohlone College Credit for Year 1*

Students will learn legal vocabulary, general knowledge of the law, search and seizure procedures, laws of arrest, judicial systems, specialized police practices, and improvement in written and oral communication. Students engage in physical activity, including running and Kajukenbo. Explore careers within the criminal justice system and job search procedures.

### **Medical Assisting (74410)**

*UC "g" Credit*

This course provides career preparation for Medical Assistant positions in the healthcare industry. 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. Internships are required during the 2nd semester. *Students not meeting all requirements for internships may not be able to continue the course for the 2nd semester.*

### **Music Production (74284)**

*UC "f" Credit*

Learn about synthesizers and making music with MIDI in Digital Audio Workstations, including Pro Tools, Cubase, and Adobe Audition. Recording, editing, and mixing techniques are developed, as well as an introduction to acoustics. Students explore career and college pathways in the music industry.

### **Nursing Assistant (74430)**

*UC "g" Credit*

This course provides career preparation 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, Assisted Living, Home Care (medical/non-medical), dementia, and Acute Care facilities. Internships are required during the 2nd semester. Students not meeting all requirements for internships may not be able to continue the course for the 2nd semester.

### **Pharmacy Technician (74440)**

*UC "g" Credit*

Career preparation for pharmacy technician in pharmaceutical field; process prescriptions, inventory, compounding, making intravenous medications, and other duties under a pharmacist's direction. *Internships are required during the 2nd semester. Students not meeting all requirements for internships may not be able to continue the course for the 2nd semester.*

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

*UC "d" Credit for each semester course*

During the First semester in Principles of Biomedical Science, students learn about: human physiology, immunology, microbiology, medicine, and research processes. During the Second semester in Human Body Systems, students examine the interactions of human body systems and take on the roles of biomedical professionals.

### **Sound Design for Film and Video Games (74283)**

*UC "f" Credit*

Students will learn to create sound effects for film and video games using Pro Tools, Adobe Audition, and Cubase. Record and edit sound effects with Foley recording and ADR techniques. Learn to integrate sounds into gaming projects using programs such as Unreal Engine and Wwise. Students develop an online career portfolio that will highlight their creative work.

### **Sports Therapy 1, 2 (74470/74471)**

*UC "g" Credit | Chabot College Credit*

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. Internships are required. Students must meet all requirements to participate in internships.*

For more information about MVROP and our programs go to [www.mvrop.org](http://www.mvrop.org)