STUDENT ID			
LAST NAME			
FIRST NAME			
EMAIL		CELL	
ADDRESS			
CITY		ZIP	PHONE
FATHER			
EMAIL		PHONE	
MOTHER			
EMAIL		PHONE	
DISTRICT		HIGH SCHOOL	
COUNSELOR			
CLASS OF		SPECIAL SERVICES	☐ IEP ☐ 504 ☐ SP ED
GENDER		BIRTHDATE	

Describe why you would like to be a student at CART.

Number your choices
1-3 in desired AM or PM box.

AM	PM	
AM	PM	AP COMPUTER SCIENCE
AM	PM	ARCHITECTURAL DESIGN
AM	PM	BIOMEDICAL ENGINEERING
AM	PM	BIOMEDICINE
AM	PM	COMPUTER GRAPHICS & ANIMATION
AM	PM	DATABASE DESIGN/COMPUTER PROGRAMING
AM	PM	DIGITAL VIDEO PRODUCTION & BROADCASTING
AM	PM	ECONOMICS AND FINANCE
AM	PM	ENVIRONMENTAL SCIENCE
AM	PM	FORENSIC RESEARCH
AM	PM	INTERACTIVE GAME DESIGN
AM	PM	LAW ORDER AND PUBLIC POLICY
AM	PM	MARKETING AND ADVERTISING
AM	PM	NETWORK MANAGEMENT
AM	X	PRODUCT DEVELOPMENT
AM	PM	PSYCHOLOGY AND HUMAN BEHAVIOR
X	PM	ROBOTICS AND ELECTRONICS

STUDENT-I would like to attend CART the 2008-09 school year	Signature	Date
PARENT-I give permission for my son/daughter to attend CART for 2008/09. I also give permission to release student information to CART	Signature	Date
COUNSELOR-I have reviewed transcripts and attendance records and recommend enrollment at CART.	Signature	Date

Application for First Year Students
2008-2009

Morning Session 7:30 – 10:30 Afternoon Session 12:30 – 3:30

PRE-REQUISITES FOR APPLICATION

- Successful completion of Biology, Algebra I, and two years of English
- Regular attendance
- On track for graduation
- Permission of high school counselor and parent
- Additional pre-requisites for some programs

You are invited to experience the excitement of the CART Program!

CART SHOWCASE

(student presentations—see all labs in action!)

Thursday, January 10, 2008
day and evening presentations

For future students!

PARENT INFORMATION NIGHTS

(information session and visits with lab teachers)

Wednesday, January 23, 2008 6:30 pm
Thursday, January 31, 2008 6:30 pm

CENTER FOR ADVANCED RESEARCH AND TECHNOLOGY

2555 Clovis Avenue, Clovis, CA 93612
Phone 559-248-7400
Fax 559-248-7423

www.cart.org

COURSE OFFERINGS 2008-2009

Network Management & Computer Maintenance

Levels 1-4 provide a basic foundation in networking. Successful students are eligible to take the Cisco Certified Network Associate (CCNA) exam. Content includes network topology, router and LAN switching theory plus design, and network troubleshooting. Students in this course will be members of the Microsoft IT Academy and will be eligible to earn certifications in the XP operating system, Office Suite application, and the advanced area of Networking and Server applications.

Recommended prerequisites: "C" or better in Geometry

1. **English 11 (P) or English 12 (P)**
2. **Advanced Network Management & Certification (C,A,U) (ROP)**
3. **Advanced Network Management & Certification (C,A,U) (ROP)**
4. **CART Technology Applications**

Database Design & Programming

The fundamentals of database technology are taught through the use of Microsoft and Oracle software. Students will learn database modeling, SQL, Object-Oriented programming, Java programming, as well as interview and presentation skills. Students enrolling in this course will be members of the Microsoft IT Academy and will be eligible to earn certifications in the XP operating system, Office Suite application, and the advanced areas of SQL and Java programming. The AP Computer Science course meets the requirements of the College Board and prepares students to take the AP Computer Science AB test. ROP Choose one of the following options:

Database Design

Recommended Prerequisites: "C" or better in Geometry

1. **English 11 (P) or English 12 (P)**
2. **Database Design and Computer Programming (ROP)**
3. **Database Design and Computer Programming (ROP)**
4. **CART Technology Applications**

AP Computer Science

Recommended Prerequisites: "B" or better in Algebra II

1. **English 11 (P) or English 12 (P)**
2. **AP Computer Science AB (P)**
3. **Database Design and Computer Programming (ROP)**
4. **CART Technology Applications**

Interactive Game Design

Game design requires skill in a number of areas including graphic design, programming, audio, animation and modeling. All students have the opportunity to learn about each of these areas while working in teams to create original games and characters rendered in both two and three dimensions. Students are introduced to industry standard software such as Macromedia Flash, 3D GameStudio and Autodesk 3D Studio Max.

Recommended Prerequisites: Database Design or AP Computer Science or Graphics or Multimedia or Web Design

1. **English 11 (P) or English 12 (P)**
2. **Interactive Game Design (ROP)**
3. **Interactive Game Design (ROP)**
4. **CART Technology Applications**

Forensic Research and Biotechnology

Students use investigative science techniques to solve intriguing problems involving the law. Scientific evidence is used to paint a picture of what happened in the past. DNA, fingerprinting, physical evidence analysis, scene reconstruction, and biotechnology are some of the techniques that will be studied.

Recommended prerequisites:
"C" in Biology, Algebra I, and English

1. **English 11 (P) or English 12 (P)**
2. **Chemistry (P) or Physics (P)**
3. **Forensic Research and Biotechnology (P)**
4. **CART Technology Applications**

Community Medical Centers - Biomedicine

Explore issues in medical science and human anatomy/physiology through involvement in dissections, medical case studies, and research projects. Investigate how a healthy body functions and how it reacts to disease. Explore medical careers by working with various medical professionals.

Recommended prerequisites:
"C" in Biology, Algebra I, and English

1. **English 11 (P) or English 12 (P)**
2. **Anatomy/Physiology (P)**
3. **Advanced Topics in Biomedicine (P)**
4. **CART Technology Applications**

Kaiser Permanente - Biomedical Engineering

Explore questions about DNA, gene therapy, genetically engineered foods, types of disease, medicines, chemical reactions in the body, and environmental health issues. Students study and complete projects on medical topics using state of the art equipment, laboratory techniques, and computer software.

Recommended prerequisites:
"C" in Biology, Algebra I, and English

1. **English 11 (P) or English 12 (P)**
2. **Chemistry (P) or Advanced Science Topics (HP)**
3. **Bioengineering I (P)**
4. **CART Technology Applications**

PG&E Environmental Science and Field Research

Conduct field research to develop an awareness of the impact of humans on the earth's limited resources. Use this data to complete a real world action project. Research resources, investigate environmental issues, conduct fieldwork, collaborate with a professional mentor, and complete the proposed action. Develop skills in testing water and air quality with Hach and LaMotte testing equipment, visualize the environment using Geographic Information Systems (GIS) and Global Positioning Systems (GPS), and create presentation products with Microsoft Office Suite.

1. **English 11 (P) or English 12 (P)**
2. **Chemistry (P) or Zoology (P)**
3. **Environmental Research and Technology (P, U) (ROP)**
4. **CART Technology Applications**

Economics and Finance

Study the behavior of human beings in producing, distributing, and consuming materials, goods, and services in a world of limited resources. Learn how the financial services industry works and strengthen the analytical, technical and communication skills needed to succeed in any economy.

1. **English 11 (P) or English 12 (P)**
2. **US History (P) or Government and Econ (P)**
3. **Economics and Finance (P, U)**
4. **CART Technology Applications**

Marketing and Advertising

Explore the dynamics of how and why people spend their money and time, as well as ways to influence those decisions. Work with business professionals to produce effective marketing plans and develop marketing strategies for local businesses.

1. **English 11 (P) or English 12 (P)**
2. **US History (P) or Government and Economics (P)**
3. **Economics of Marketing and Advertising (P) (ROP)**
4. **CART Technology Applications**

McCormick Barstow LLP - Law & Order & Policy

Examine the American legal system and its impact on every American's life. Discover the current state of the law, and forecast the changes that will occur in your lifetime. Also consider America's influence on global legal issues.

1. **English 11 (P) or English 12 (P)**
2. **Government and Economics (P)**
3. **Law and Order and Public Policy (P)**
4. **CART Technology Applications**

Psychology and Human Behavior

Investigate the inner workings of the human mind on both the physiological and chemical levels. Learn why people behave the way they do. Students explore the workings of their own mind while learning why people behave the way they do. Students consider what influences behavior and how behavior is controlled, changed, and modified.

1. **English 11 (P) or 12 (P)**
2. **Chemistry (P) or Anatomy/Physiology (P)**
3. **Psychology and Human Behavior (P)**
4. **Cart Technology Applications**

Architectural Design

Instruction in planning, documentation and design as it relates to residential and commercial building. Follow the stages of design process by completing projects from site analysis to finished building design. Study fundamental concepts of art through architectural history and design theory. AutoCAD software will be used. ROP

1. **English 11 (P) or English 12 (P)**
2. **Architectural Design (P, U) (ROP)**
3. **Architectural Design (P, U) (ROP)**
4. **CART Technology Appications**

GRUNDFOS - Engineering & Product Development

Knowledge, imagination, and skills are used to create solutions to engineering problems faced by our society. SolidWorks software will allow you to create a design concept on the computer and produce a prototype on state of the art rapid prototyping machines. (AM ONLY)

1. **English 11 (P) or English 12 (P)**
2. **Physics and Technology (P)**
3. **Engineering I (P) (ROP)**
4. **CART Technology Applications**

GRUNDFOS - Robotics and Electronics

Explore the fascinating and fun world of robotics, from simple toys to the complex logic and articulation of environmental sensing, recording and actuating devices, automated design and manufacturing machines. Learn to design, build and program a device that responds to external information to perform a set of particular tasks. Study involves understanding how electronics, pneumatics and computer systems receive information from receivers that control robots. (PM ONLY)

1. **English 11 (P) or English 12 (P)**
2. **Physics and Tech (P)**
3. **Robotics and Electronics (P) (ROP)**
4. **CART Technology Applications**

Digital Video Production and Broadcasting

Students study and learn techniques used in digital video production. All stages of production, from concept idea to final product, will be addressed through hands-on projects. From capture to render and everything in between, students manipulate digital media to deliver the desired message. This is a must-have class if you are interested in video, film, or broadcasting. Software applications include Adobe Premier Pro, After Effects, Acid Audio, and Sound Forge.

1. **English 11 (P) or English 12 (P)**
2. **Sociology of Media (P)**
3. **Digital Video Production and Broadcasting (P) (ROP)**
4. **CART Technology Applications**

Computer Graphics and Animation

Students explore elements and principles of design, typography, and digital media manipulation. Through a project-based curriculum, using Photoshop, Illustrator, Dreamweaver, and Flash, students learn to communicate their message with maximum impact. Projects include posters, web sites, newspapers, brochures, and 2D animations. Here is your chance to explore numerous career choices in the popular graphic design, web design and digital imaging fields.

1. **English 11 (P) or English 12 (P)**
2. **Sociology of Media (P)**
3. **Computer Graphis and Animation (P) (ROP)**
4. **CART Technology Applications**

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(P) Approved by University of California and California State University systems as meeting entrance requirements
(A) Articulated with Fresno city College/Reedley
(U) Course receives Unitrac college credit through California state University, Fresno
(B) Course prepares students to take industry certification Exam
(ROP) Regional Occupational Program
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