

JOB FUNCTION DEFINITIONS (8/2003)

ARTS CATEGORY

Visual & Digital / Graphics / Multimedia / Web Design / Fine Arts:

Jobs dealing with the fine arts such as drawing, painting, sketching, sculpting, and photographing. Also includes commercial arts jobs that involve designing art and copy layouts for materials presented in books, magazines, newspapers, and creating cartoons and illustrations, or designing web pages. Technical skills may include Word, Excel, PowerPoint, Outlook, Adobe Illustrator, Photoshop and QuarkXPress, HTML, DreamWeaver, PhotoShop, Corel Draw. Sample jobs titles include: Photographer, Freelance Artist; Graphic Designer; Computer Graphics Artist, Web Designer / Master Painter; Cartoonist; Illustrator; Printmaker; Exhibit Designer/Artist; Set/Stage Designer; and Photojournalist. (Possible cross-coding to Comm/TV/Radio/Film; to Editing/Writing; to Web Development)

*Web Designer jobs may be cross-coded with Web Development. The major difference is the level of technical skills required. Web Designers are usually more interested in the creative design aspects while Web developers usually have more technical skills to support back end functions.

Performing Arts / Dance / Music / Theater: Jobs involving performance in music, theater, dance engaged in such activities as producing; directing; performing in plays; playing musical instruments; singing; directing instrumental or vocal music; composing, arranging, and/or orchestrating musical compositions; planning the presentation of concerts; composing, performing, and/or teaching dance. Sample job titles include: Dramatic Coach; Actor; Stage Director/Manager; Narrator; Choreographer; Dance Instructor; Music Teacher; Puppeteer, Mime, Choral Director, Orchestral Musician, Singer, Arranger, Composer, Copyist, Magician.

Art Administration: Jobs involving administrative tasks (organizing, coordinating, managing, developing, supervising, event planning) and activities in an arts-related environment such as museums and performing arts organizations. Sample job titles include: Administrative Assistant, Event Coordinator, Outreach Coordinator, Membership Assistant, Artist Services Coordinator, Education Program Coordinator, House Manager, Exhibit Hall Manager, Artistic Director, Fundraising Officer, Facilities & Production Manager, Public Affairs Coordinator, Ticket Services, Marketing Director. (May be cross-referenced with Administration/Management or Event Management categories.)

BUSINESS/MANAGEMENT CATEGORY

Accounting and Related: Jobs involving planning, managing, analyzing, and making decisions about financial transactions and taxes, and monitoring information systems that furnish this information to managers in business, industry and government. Sample job titles might include: Accountant, Auditor, Bursar, Bank Examiner, Revenue Agent, Controller, Budget Officer, and Treasurer.

Administration / Management: Administrators and Managers direct and supervise the daily functions of a working environment and the workers in that environment, which may include an entire company or a department or division of an organization. Managers develop overall plans; set goals and deadlines; develop procedures to direct supportive services; define work responsibilities; and delegate authority. They are also often involved in the hiring and dismissal of employees. Include in this category any management or administration jobs not covered elsewhere. Examples: Department/Store/Retail Manager; Administrative Services Manager; Health Services Manager; Facilities Manager; Administrative Assistant, if appropriate level of work; Construction Manager; Transportation Managers; Hotel Managers; Food-Service Managers; Travel Agent.

Contract Administration / Purchasing / Production: Jobs involving the negotiating and contracting for the purchase of equipment, products, or supplies; involves determining the quality, quantity, and costs of materials to be purchased; maintaining inventory and production schedules. Sample job titles include: Buyer – wholesale or retail, Purchasing Agent, Contract Administrator/Specialist, Procurement Engineer, Purchase-Price Analyst, Inventory Clerk, Materials Manager, Production Manager/Supervisor.

Events Management / Tourism: Events Management jobs involve the organization of people around a theme and includes planning, organization, and management of meetings, conferences, conventions, trade shows, expositions, fairs, festivals, speaking engagements, workshops, social functions, concert promotion/planning, fundraisers, art shows, and in-house meetings. Responsibilities may include recruiting participants; sales; advertising events; developing promotional materials; proposal writing; negotiating; arranging for facilities; arranging for vendors to provide catering, lighting, seating, room arrangements, decorating, music, and cost analysis; scheduling, verbal and written communications with clients; creating time lines; managing multiple tasks and meeting deadlines; and

budgeting. Job titles include Meeting/Event Planner, Conference Manager, Festival Coordinator, Corporate Meeting Planner, Wedding Planner, Meeting Director, Program Coordinator, Trade Show Director, Convention Coordinator, Account Manager, Sales Manager, and Public Affairs Coordinator. Tourism jobs involve the business of providing tours/excursions to places of interest and services to tourist and those traveling for pleasure. Tourism professionals manage the tourism experience for the benefit of the traveler, the host, and the supporting industry. Areas include vacations, resort management, environmental tourism, amusements, cultural and heritage tourism, recreation services, event management, lodging, travel planning and transportation. Skills may involve product development, sales and marketing, public relations, oral and written communications, customer relations, administration/management, operations, finance, and information technology. Job titles include Director of Sales and Marketing, Travel Agent, Events Coordinator, Tour Guide/Operator, Ski Instructor Cruise Director, Operations Director, Tourism Coordinator, Reservations Manager, Director of Convention and Visitor Bureau, Theme Park (Worker), Spa Host.

E-Commerce: Jobs that involve the development of systems or procedures to conduct electronic commerce. They provide management/decision makers with information on such matters as to the marketing of products electronically, procedures for carrying out e-commerce (payment / support), integrating in-house and third-party systems to support customers' business processes (invoicing), recommendations on proper technology for conducting e-commerce, and the overall cost-saving benefits to a company. E-Commerce positions can require a combination of computer skills such as Ariba, Peoplesoft, ERP Implementation (SAP), Java, Javascript, HTML, XML, knowledge of networks, knowledge of relational databases, knowledge of Systems integration, and knowledge of System Life Cycle Design.

Finance / Economics: Economists study the way society distributes scarce resources. They provide management/decision-makers with information on such matters as the markets for and prices of company products, the effect of government policies on business or international trade, the advisability of adding new product lines or services. They conduct research, collect and analyze data and monitor economic trends. Job titles include Economist, Research Analyst, Economic Analyst.
(Possible cross-coding with: Gov't/Public Affairs; Research-Soc. Science,

International Affairs)

Finance: Jobs that work with the ways individuals and organizations invest money. They work with stocks, bonds, mutual funds, annuities and other financial products. Job titles include: Stockbroker, Investment Agent, Financial Counselor, Retirement or Estate Planner, Loan Officer, Banking Customer Service Agent, Finance Manager, Branch Manager; Credit Analysts, Budget Analyst, Financial Analyst.

Human Resources / Labor Relations / Organizational Development /

Training: Positions involving recruiting/listing position vacancies, scheduling and/or interviewing and recommending applicants; position analysis and/or classification; health, pension and supplement benefit plan management; tracking applicants or staff; research and investigations; employment regulations; employee assistance specialist. Training positions could include education program presentation, event planning, orientations, tours, and customer service. Labor relations specialist positions may require office computer software skills such as Lotus 123, word processing, Excel and Access.

Insurance / Real Estate / Property Management: Insurance jobs involve providing individuals or businesses with insurance protection against loss. Real Estate and Property Management jobs plan, direct and coordinate selling, buying, leasing or governance activities of commercial, industrial, or residential real estate properties. Both of these areas involve direct contact with consumers and are client-focused. Specific job titles include: Insurance/Real Estate Sales Agents; Brokers; Appraisers; Claims Adjusters; Underwriters; Investigators; Insurance Manager; Homeowner/Condo Association Manager; Rental Manager.

International Business & Commerce / Development / Policy: Jobs that involve business development or commerce in the international market. They provide management/decision-makers with information on such matters as the international markets for and prices of company products, the effects of European government policies on business or international trade, the advisability of adding new product lines or services to an international market. They conduct research, collect and analyze data and monitor Global economic trends. Sample titles include: International Business Development Manager, International Sales Analyst, International Account Manager, International Buyer, International Product & Marketing Manager, and International Finance Analyst.

Management – Association / Non-Profit Management: Administrators, Managers of Trade/Professional Associations, e.g., Executive Director; Meetings/Conventions Director of Staff; Exhibition/Show Manager; Communications/Publications Director; Government Relations; Membership Director/Staff. Non-profit positions not included in other job type categories include: Executive Director, Development Director/Fundraiser, Program Coordinator/Director, Foundation Director, and Membership Director/Staff.

Management Consulting / Management Analysis / Management Development: Review, analyze and suggest improvements to business and organizational systems to assist management in operating more efficiently and effectively. Conduct organizational studies and evaluations, design systems and procedures, conduct work simplification and measurement studies, and prepare operations and procedure manuals. Job titles include: Consultant; Business/Management Analyst/Management Development. (Possible cross-coding to: Database Development/Admin and/or Systems Analysis/Integration)

Sales / Marketing / Customer Service: Sales jobs primary duties are to interest potential buyers in their merchandise, product or service and to address the client's questions or concerns. They market their company's products/services to manufacturers, wholesale and retail establishments, government agencies, and other institutions.

Marketing jobs deal with trying to understand consumer needs and demands for particular products or services and from that, designing marketing strategies; gathering and analyzing data on past sales and competitors; identifying potential markets; developing pricing strategies.

Customer Service jobs provide services directly to an individual consumer or industry purchasing some type of merchandise. Assisting and supporting customers with any specific questions, difficulties, and needs is also a major component.

Sample job titles include: Marketing Manager, Product Developer, Market Researcher, Consumer Researcher, Account/Sales Manager, Merchandising Representative, Manufacturers Representative, Sales Representative, Services Sales Representative, Sales Associate, Customer Service Representative/Manager, Telemarketer.

COMMUNICATION CATEGORY

Advertising / Public Relations: Advertising jobs engage in developing

and producing advertisements, market strategies and promotional materials to create extra interest in the purchase of a product or service. Sample job titles include: Consumer Researcher, Advertising Manager, Promotion Manager, Account Representative/Executive.

Public Relations jobs may involve directing publicity programs for an organization to a targeted public. Serve as advocates for businesses, governments, and other organizations, and build and maintain positive relationships with the public. Direct contact with one or many types of media communications is essential in directing such publicity programs. Prepare press releases. Sample job titles include: Public Relations Specialist/Manager; Media Communications Coordinator; Campaign Manager; Publicity or Promotions Manager; Community Relations Specialist; Press Secretaries; Information Officers; Public Affairs Specialists(Possible cross-coding with Communications; Sales/Marketing)

Communications / TV / Radio / Film / Production: Positions involve media communications including television, radio, and film. Work includes jobs in the areas of broadcasting (announcers, newscasters, technicians), production work, media research, directing, and camera work. These positions also often include public relations responsibilities (Possible cross-coding with Adv/Public Relations; Editing/Writing/Reporting; or Interactive Media).

Editing / Writing / Reporting / Publishing: Jobs may include: Journalist (print and broadcast); Technical Writer; Desktop Publisher, Video Script Writing; Speech Writing; Electronic Publications Specialist, Online Publisher, and Editing. Also includes generalist positions appropriate for liberal arts majors that emphasize writing and/or editing skills as important qualifications. (Possible cross-coding with Adv/Public Relations; Communications; or Interactive Media).

HEALTH/EDUCATION/COMMUNITY SERVICE/RECREATION CATEGORY

Education - Teaching / Administration: Positions involving teaching, educational administration, school counseling, special education, English as a second language, day care teaching/administration, and educational research. Positions may be in educational institutions at the primary, middle, secondary, community college, college/university level; in day-care centers, after-school programs. At the higher education level, positions include teaching, administration, student services and counseling.

Health / Medical Service / Fitness: Jobs that require working with individuals to promote health, wellness and fitness. Positions involving health education, fitness/exercise, corporate wellness programs, nurses, nurse practitioners, health/nursing administrators, aerobic instructors, personal fitness trainers. Positions involving medical service, including part-time jobs in medical offices and hospitals. Additional positions involving medical research and lab/medical technologists/technicians. [GMU does not offer degrees in physical or occupational therapy.]

Human Services / Social Work / Religious / Counseling: various direct service providers such as counselors, mental health practitioners, social workers, administrators, religious workers, shelter/ residential workers, and hotline listeners. Could include public policy, service coordination, or social change functions related to community service issues for special groups, e.g., disabled, elderly, children, women, animals (see also Management – Associations/Non-Profits).

Recreation / Sports / Athletics: Jobs that require working with parks and recreation facilities or athletic organizations. Job titles may include: Recreation Facilities Manager, Parks and Natural Resource Manager, Park Naturalist, Park Ranger, Naturalist Interpreter, Sports Manager, and Coach.

Instructional Design / Technology Training: Jobs that require expertise in designing and learning material using technology; proficiency in the use of various software applications related to integrating technology into instruction, including Microsoft Office Suite, HTML editors, multimedia development tools and coursework management tools; use of ISD process to develop instructional solutions; writing and editing skills. Job titles include: instructional designer, technical trainer, educational technology specialist, interactive learning specialist, online content specialist.

INFORMATION TECHNOLOGY/ ENGINEERING CATEGORY

Civil / Infrastructure / Environmental Engineering: Jobs involving engineering, planning, design operation in specific areas. Civil engineers work in fields such as construction, land development, structural design, transportation, soil mechanics, wastewater treatment, or solid waste management. Use of Auto CAD systems in these jobs is common. Other titles include Transportation Engineer, Architectural Engineer Urban / Community Planner, and Structural Engineer.

Computer Engineering: Computer Engineers design new computer circuits, microchips, and other electronic components. Jobs can include Electrical & Hardware engineering (but are not the primary function). Job functions can include optimizing previous designs, debugging existing designs, providing technical support, site maintenance, sales engineering, developing/designing highly complex products (CAD tools), developing long-range planning.

Database Development / Data Administration / Data Support/ Data Security: Jobs involving Data Administration and database design, and security for those systems. Key words include Oracle, Access, SQL. Jobs include: Data Administrator, Data Analyst, Data Manager, Data Modeler /Modeling Specialist. Jobs involving Databases include: Database Administrator, Database Analysts, Database Developer, Database Manager, Database Security Expert. Other job titles: DSS (Decision Support Services), Knowledge Architect, Systems Analyst, Systems Administrator, Tester. Jobs involving Data/Database Support include: Data Entry, Data Processing.

Electrical Engineering / Hardware Engineering: Jobs involving the research, design, development, testing, production and sales of electrical products and equipment, including computer hardware, communications, signal-processing devices, control systems, and electronics, digital circuits. Typically requires the use of software, but programming is not the primary function of the job.

Network Systems: Design/Administration/Engineering/Security: Network Engineers often set up networks from scratch, including requirement analysis, create security protocols, selection of hardware/software, initial operation and training users. Jobs involving design, installation, testing, administration, maintenance and/ or user support with computer networks. Specific job duties may include computer security, network administration, data recovery, network communications (including coordination and installation of communication lines). Positions often include responsibilities for Internet connectivity. Key words include LAN/ WAN/ TCP/IP protocols, MCSE, Cisco, CCNE
Sample job titles: Communications Analyst, Data Communications Analyst, Information Systems Administrator, Information Systems Operator; Network Administrator, Analyst, Manager, Operations Analyst,

Security Analyst; Systems Support Lead; Technical Support Specialist, User Support Specialist; Telecommunications Network Technician

Programming / Software Development: Jobs involving the design, development, modification, and testing of computer software/ applications.

Requires skill in computer programming languages, software applications, i.e. C/C++, Visual Basic, Cobol, etc. Specific job titles include:

Applications Developer, Applications Analyst, Business Analyst; Operating System Design Engineer, Programmer/Analyst, Program Manager, Project Lead; Software Applications Specialist, Engineer, Development Engineer, QA Specialist. Systems Analyst, Administrator

Systems Engineering / Systems Analysis / Systems Integration / Systems Security / Enterprise Engineering: Systems Engineers determine the most effective way an organization utilizes all of their systems, people, machines, information and materials. They plan, design, implement and manage integrated systems such as networks. They do not focus on one aspect of the system, but the system as a whole. Jobs involving application integration, business continuity analysis, cross-enterprise integration, systems design, systems management, warehouse design. E-Business Specialist, Electronic Transactions Implementer. Information Systems Architect. Information Systems Planner. Systems Analyst, Systems Architect, Systems Integrator.

Technical Support / Help Desk Support: jobs involving provision of technical support to clients within an organization or to outside clients/customers, e.g., Technical Support Analyst, Call Center Support Representative, Customer Liaison, Service Representative, Help Desk Specialist/Technician, Maintenance Technician, PC Support Specialist, PC Systems Coordinator, Sales Support Technician, Testing Engineer

Web Development: jobs involving digital media, web development, and administration. Key packages might include JAVA, HTML, Dreamweaver, PhotoShop, Perl, UNIX (or LINUX), Cold Fusion Programming ASP/ASP.NET/Visual Basic, DHTML, JavaScript. Digital Media jobs include: 2D/3D Artist, Animator, Audio/Video Engineer, Designer, Media Specialist, Media/Instructional Designer. Multimedia jobs include: Authoring Specialist, Developer, Multimedia Specialist. Other jobs include: producer, production assistant, programmer, streaming media specialist, virtual reality specialist.

*Web development jobs differ from web design jobs in that they usually require stronger technical skills and the tasks supports back end functions and operation of web sites.

PUBLIC AFFAIRS/SOCIAL SCIENCE CATEGORY

Government / Public Affairs / Public Policy / Transportation: Government / Public Affairs / Public Policy positions include jobs in the public, private, or non-profit sectors and can be at the local, state, or national level. Job functions could include as Lobbyist, Legislative Assistant, Contract Specialist, Budget Analyst, Management Analyst, Policy Analyst, Personnel Specialist, Public Affairs Coordinator, Urban/City Planner, among others. Transportation positions can be with the Government or Corporate sectors. Jobs can include transportation managers, transportation / storage clerks, shipping & receiving clerks, boat operators, railroad engineers, and aviation positions.

International Education / Communication / Language Services: Jobs requiring proficiency in a foreign language. Jobs involving international trade (import/export), trade policy, international economics/analysis, international finance/lending, international relations, international marketing, research on international transactions; or positions requiring knowledge/interest in countries outside the U.S.

Legal / Paralegal / Law Enforcement / Security / Intelligence: Legal/Paralegal positions may include: Legal Research Associate; Paralegal Specialist; Equity Assistant. Law Enforcement/Security positions typically include: Security Guard/Officer; Police Officer; Parole Officer; Probation Officer; Corrections Intake Specialist; Criminal Investigator; and Special Agent. (Positions requiring a law degree or student studying law are referred to School of Law Career Services). Intelligence workers gather, analyze, and interpret highly sensitive intelligence information. Positions may include Intelligence Officer or Director, Special Agent, Collections Management Officer, Researcher, Cartographer, Cryptanalyst, Intelligence Analyst, Imagery Analyst, Regional Analyst, Financial Analyst, Linguist/Language Interpreter, Operations Officer.

Museum / Library / Curator / Archives: Positions involving books, archival materials, card catalogues, exhibits, educational programs. Job functions could include tracking and/or classifying objects/materials,

maintaining/recording data in collections, developing or conducting educational outreach programs or tours, preparing exhibits. Also, could include handling, preserving, securing, caring for and rotating collections.

Research – Social Science / Non-Technical: Positions involving research, analysis, and/or reporting of information. Focus may be on social change, social sciences, behavioral sciences. Positions usually require written communication skills and computer literacy; could require statistics, desktop publishing, often require data entry skills & sometimes data manipulation, or questionnaire development skills. These jobs relate to anthropology, sociology, psychology, history, public policy, economists, government, etc.

(Possible cross-coding to: Gov't/Public Affairs. Research positions involving health/medical could be listed under Health/Medical. Positions requiring degrees in the natural or physical sciences -Biology, Chemistry, Physics, Geology, etc.- could be listed in those categories.)

SCIENCE/MATHEMATICS CATEGORY

Physical Sciences / Geosciences – GIS / Physical Chem: Jobs include Research/Technician positions in areas including: physics, geology, earth science, chemistry. Physics positions involve researching to explore and identify basic principles governing the structure and behavior of matter, the generation and transfer of energy, and the interaction of matter and energy.

Geology and Earth Science positions deal with studying all physical aspects, composition, structure, and history of the earth. Much of geological research involves searching for natural resources and solving environmental problems. Chemistry positions involve the investigation of properties, composition, and structure of matter and the laws that govern the combination of elements and reactions of substances.

Natural Science / Environmental Science / Conservation: Jobs include Researcher/Technician positions in biological and environmental sciences, such as botany, zoology, microbiology, forestry, marine biology/oceanography, agriculture/horticulture. Includes fieldwork positions: observing and collecting data on plants, animals, and the environment in the field. Also may include office positions researching, collecting, organizing, and/or presenting scientific and environmental information in writing and via verbal presentation. Educating the public on and interpreting scientific/environmental conservation information.

Mathematics / Statistics / Operations Research / Actuarial: Jobs

involving the application of mathematical principles and theories in the analysis of data and the calculation of probable logical forecasts. Jobs may also include research, teaching, computer programming, and business/management skills.

Biosciences / Biochemistry: Jobs relating to research on and products involving the structure and behavior of living organisms. Includes medical and pharmaceutical research; biotechnology jobs—making or modifying plants or animals or modifying microorganisms for specific uses. Biodefense research seeks to provide medical tools (including scientific information; improved diagnostic tests, vaccines, and therapies) to effectively respond to a biological attack. Positions in biosciences and biochemistry include product research, development, testing, production, and marketing (lab and admin positions requiring bioscience background).