| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 1    |
| Job Category: P    | Job Level: 4            |
| FLSA Status: E     | Job Code: E03000        |

## P4: Level Standards

#### **GENERAL ROLE**

This level is accountable for directly providing service to any assigned work unit at the University. The service can focus on a single or a variety of job functions with varying degrees of independence. Positions at this level may supervise student or support employees.

#### Incumbents:

- Put into effect what is required by defined job duties and responsibilities following professional norms or established procedures and protocols for guidance.
- Alter the order in which work or a procedure is performed to improve efficiency and effectiveness.
- Recommend or implement modifications to practices and procedures to improve efficiency and quality, directly affecting the specific office operation or departmental procedure or practice.

#### INDEPENDENCE AND DECISION-MAKING

#### → Supervision Received

Works under direction.

#### → Context of Decisions

- Decisions should involve selecting an approach from among alternatives, timing when certain tasks should be performed, determining how to best use available resources, and other similar choices.
- Decisions require more coordination and collaboration among different sources, taking into consideration the roles and impact on work outside the immediate organization.

#### → Job Controls

- Has the latitude to make decisions on projects that they are accountable for delivering on.
- Free to plan and carry out all phases of work assignments.

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 1    |
| Job Category: P    | Job Level: 4            |
| FLSA Status: E     | Job Code: E03000        |

#### **COMPLEXITY AND PROBLEM SOLVING**

#### → Range of issues

 Assignments are defined as less reoccurring or cyclical tasks, and primarily consist of development or refinement of programmatic or administrative objectives.

#### → Course of Resolution

 Resolution and project completion require substantial planning and scheduling within the department in order to obtain and align resources when and where needed.

### → Measure of Creativity

 Problems are not amenable to strict technical resolution, requiring innovative thinking.

#### **COMMUNICATION EXPECTATIONS**

### → Manner of Delivery and Content

- Regularly provides information on finished materials to others.
- Diplomatically and effectively deliver information difficult to understand or in contrast with a student or customer's views.

#### SCOPE AND MEASURABLE EFFECT

- Incumbents may supervise a small homogenous department, with proportionate responsibility to perform daily responsibilities similar to the work of subordinate staff.
- Actions typically affect an individual, item, event, or incident, etc.
- Actions taken are generally done to meet reporting requirements or regulatory guidelines, or to satisfy internal checks and balances and/or existing standards.
- Incumbents are typically designated as a lead or frequently assigned project leadership roles within a specific administrative/programmatic function or specialty area.

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 1    |
| Job Category: P    | Job Level: 4            |
| FLSA Status: E     | Job Code: E03000        |

 Generally, have a more direct impact on a larger action or process, such as serving as an approver in a process, where the process is "owned" by a different work unit.

## **Job Template**

#### **GENERAL SUMMARY**

Provides domain competency and technical support in software development. Confers with technical leadership in research, evaluation, and identification of technology solutions.

#### REPORTING RELATIONSHIPS AND TEAMWORK

Works under general supervision of a supervisor or manager.

#### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

The intent of this section is to list the primary, fundamental responsibilities of the job – that is, the duties that are central and vital to the role.

- Identifies and resolves system errors. Consults with functional users to resolve problems in software systems.
- Writes basic scripts and procedures to assist with managing software systems.
- Documents modifications made to the hardware, software, or procedures related to software systems.
- Uses various software and hardware tools, installs software and/or hardware.
- Trains non-technical staff on procedures and technology.
- Carries out small- to moderately-sized technical tasks with minimal assistance and writes summaries of technical project work.
- Responds to inquiries from other departments, and collaborates with external departments. Documents all technical work in user guides for future reference.
- Supports senior technical personnel with installation, upgrade, and maintenance of software systems.
- Uses standard diagnostic techniques to analyze, identify and solve problems.

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 1    |
| Job Category: P    | Job Level: 4            |
| FLSA Status: E     | Job Code: E03000        |

- Supports the development of plans and processes that minimize risk to services or systems due to errors.
- Supports planning for implementations and upgrades of software systems.
- Supports technical projects as part of a project team.
- Support the confidentiality, integrity, and availability of University information as part of the overall University Information Security Program.
- Performs related work as required.

#### **MINIMUM QUALIFICATIONS**

- Associates degree
- Four years of related experience

#### OR

- Bachelor's degree
- Two years of related experience

#### OR

• Six years of related experience

#### **COMPETENCIES**

### Knowledge of:

- Programming languages
- Software systems and tools
- Data management
- General Information Technology functions and capabilities
- Software development life cycle

## Skill in:

- Planning and organization
- Troubleshooting
- Developing and maintaining effective and appropriate working relationships
- Critical thinking, problem solving and analysis

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 1    |
| Job Category: P    | Job Level: 4            |
| FLSA Status: E     | Job Code: E03000        |

# Ability to:

- Provide technical training and guidance
- Communicate effectively through both oral and written means
- Respect diversity and work collaboratively with individuals of diverse cultural, social and educational backgrounds
- Prepare clear documentation
- Maintain the confidentiality of information and professional boundaries

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 2    |
| Job Category: P    | Job Level: 6            |
| FLSA Status: E     | Job Code: E03001        |

## P6: Level Standards

#### **GENERAL ROLE**

This level is accountable for serving in a highly advanced capacity in an area of specialization. The advanced resource capacity must be distinct from the regular or most common provision of work within the area of specialization. Positions at this level are not reflective of the majority of the workforce, but instead the most advanced functions within an area of specialization.

#### Incumbents:

- Serve in a subject leader and consultative capacity within an area of expertise.
- Set goals and objectives for team members to meet project initiatives and standards.
- Distribute project work.
- Evaluate and monitor the accuracy, quality, quantity, and timeliness to meet project milestones and objects.

### INDEPENDENCE AND DECISION-MAKING

- → Supervision Received
  - Works under direction.
  - Seeks approvals when significant changes to process steps are considered and additional resources for task completion are required.

#### → Context of Decisions

- Decisions are driven by departmental policy and procedures.
- Incumbents understand the smallest details of an assigned area.

#### → Job Controls

- Free to plan and carry out all phases of work assignments, including the oversight of project staff.
- Has the latitude to make daily operational project decisions.

### **COMPLEXITY AND PROBLEM SOLVING**

→ Range of issues

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 2    |
| Job Category: P    | Job Level: 6            |
| FLSA Status: E     | Job Code: E03001        |

- Issues are readily identified but cannot be understood and fixed in simple cause-effect terms.
- Variables affecting the problem are generally known.

#### → Course of Resolution

 Utilizing an understanding of best practices and the way similar units run elsewhere, convincingly recommends, develops, and implements capital and process improvements to the area.

#### → Measure of Creativity

 Problems require integrative solutions such as how technologies, processes, resources, and people all fit together

#### **COMMUNICATION EXPECTATIONS**

#### → Manner of Delivery and Content

 Deliver statements and information in a combined persuasive and motivational fashion to subordinate staff, departmental and University administrators, and the campus community as a whole.

### SCOPE AND MEASURABLE EFFECT

- Serve as a lead over major projects within a specific administrative/programmatic function or specialty area requiring specialized education.
- Actions regularly affect a department or an office-centric outcome with departmental impact.
- Actions generally have a direct impact on controlling such things as nature of work and scope of services.
- Actions may have high-risk financial, compliance, political or safety implications.
- Performance results tend to relate to efficiency, degree of waste/cost overruns, quality/continuous improvement, timeliness, resource allocation/effectiveness, etc.

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 2    |
| Job Category: P    | Job Level: 6            |
| FLSA Status: E     | Job Code: E03001        |

# Job Template

### **GENERAL SUMMARY**

Provides domain proficiency, broad competency, and advanced technical support in software development. Provides analysis and assessment, and recommends software technology solutions.

#### REPORTING RELATIONSHIPS AND TEAMWORK

Works under limited supervision.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

The intent of this section is to list the primary, fundamental responsibilities of the job – that is, the duties that are central and vital to the role.

- In-depth technical knowledge and the ability to design and support information technology services in a multi-tiered environment.
- Identifies and resolves system errors. Consults with functional users to resolve problems in software systems.
- Writes scripts and/or basic programs to assist with managing software systems.
- Implements new software systems.
- Develops procedures, techniques, or programs to analyze or improve the performance and efficiency of software and hardware systems. Documents modifications made to the hardware, software, or procedures related to the systems.
- Works with vendors and management to develop or enhance software systems.
- Works with technical and functional staff to resolve system integration issues.
- Carries out larger technical tasks with minimal assistance, and writes summaries of technical project work.
- Responds to inquiries from other departments, and collaborates with external departments.
   Documents all technical work in user guides for future reference.
- Develops plans and processes to ensure the availability of services or systems.

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 2    |
| Job Category: P    | Job Level: 6            |
| FLSA Status: E     | Job Code: E03001        |

- Collaborates with senior technical personnel in the installation, upgrade, and maintenance of software systems.
- Plans software development and implementation.
- Contributes to technical projects as part of a cross functional team.
- Collaborates with senior technical personnel in the installation, upgrade, and maintenance of application systems.
- Performs related work as required.

#### MINIMUM QUALIFICATIONS

- Associates degree
- Six years of related experience

OR

- Bachelor's degree
- Four years of related experience

OR

Eight years of related experience

### **COMPETENCIES**

### Knowledge of:

- Programming languages
- Software systems and tools, methodologies and techniques
- Data management
- Various operating systems
- General Information Technology functions and capabilities
- Project management and software development life cycle

### Skill in:

- Planning and organization
- Troubleshooting
- Developing and maintaining effective and appropriate working relationships

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 2    |
| Job Category: P    | Job Level: 6            |
| FLSA Status: E     | Job Code: E03001        |

• Critical thinking, problem solving and analysis

# Ability to:

- Provide technical training and guidance
- Communicate effectively through both oral and written means
- Respect diversity and work collaboratively with individuals of diverse cultural, social and educational backgrounds
- Prepare clear documentation
- Maintain the confidentiality of information and professional boundaries

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 3    |
| Job Category: P    | Job Level: 7            |
| FLSA Status: E     | Job Code: E03002        |

## P7: Level Standards

#### **GENERAL ROLE**

This level is accountable for serving in an expert resource capacity in an area of specialization. Positions at this level are not reflective of the majority of the workforce, but instead the most complex functions within an area of specialization.

#### Incumbents:

- Serve in a subject leader and consultative capacity within an area of expertise.
- Provide analytical, technical, and advisory support to leaders and decisions makers within the same disciplinary track.
- Lead projects or initiatives within the specific area of expertise, to include leading vendors or cross-functional departments or teams.
- Research and apply better ways to effectively achieve end results by, for example, arranging/rearranging the way work is performed, changing elements of processes, and adding or deleting new or unnecessary capabilities/functionalities as needed.
- Set project objectives, immediate- and/or long-term, as a means to fulfill project initiatives.

#### INDEPENDENCE AND DECISION-MAKING

### → Supervision Received

- Works under general direction.
- Seeks assistance only when unique situations arise, coupled with financial impact to the division and political consequence.

#### → Context of Decisions

 Work is focused on and regulated by specific department/division goals and milestones.

#### → Job Controls

- Act based on own judgement as long as actions adhere to division policies and operating procedures, and remain focused on the department and division objectives and missions.
- Subject to managerial controls through conferences, review of reports, and occasional on-site visits or check-ins.

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 3    |
| Job Category: P    | Job Level: 7            |
| FLSA Status: E     | Job Code: E03002        |

 Managerial controls are exercised on the incumbent for matters of intermediate- and long-range planning, budgetary, and human resources based matters.

### **COMPLEXITY AND PROBLEM SOLVING**

#### → Range of issues

- Problems are unique and unexpected.
- Challenges for problems arise due to lack of precedent.

#### → Course of Resolution

- Problems require response/adaptation to changing conditions or circumstances, necessitating enterprise and new approaches with broad impacting effects.
- Problem resolution should regularly require collaboration and coordination with units internal to the division, with occasional collaboration and coordination outside the division.

#### → Measure of Creativity

• Incumbents are regularly required to develop new methods/methodology for evaluation and implementation plans for new initiatives.

### **COMMUNICATION EXPECTATIONS**

#### → Manner of Delivery and Content

 Deliver statements and information in a combined persuasive and motivational fashion to subordinate staff, departmental and University administrators, and the campus community as a whole.

#### SCOPE AND MEASURABLE EFFECT

- Serve as an expert on specific subject matter evidenced by regularly researching and producing reports (e.g., white papers) on technical matters of systematic importance and consulting with managers throughout the division/University on specific issues in the position's area of expertise.
- Actions regularly affect a departmental outcome with division-wide impact.

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 3    |
| Job Category: P    | Job Level: 7            |
| FLSA Status: E     | Job Code: E03002        |

- Actions have a direct impact on controlling such things as project scope, team size and nature of assignments, operating budget, etc.
- Actions may have high-risk financial, compliance, political, or safety implications.
- Performance results tend to be related to efficiency, degree of waste/cost overruns, quality/continuous improvement, timeliness, resource allocation/effectiveness, etc.

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 3    |
| Job Category: P    | Job Level: 7            |
| FLSA Status: E     | Job Code: E03002        |

# Job Template

### **GENERAL SUMMARY**

Provides domain expertise, broad proficiency, and expert technical support in software development. Leads technical decisions in design of software solutions.

#### REPORTING RELATIONSHIPS AND TEAMWORK

Works under general direction.

### **ESSENTIAL DUTIES AND RESPONSIBILITIES**

The intent of this section is to list the primary, fundamental responsibilities of the job – that is, the duties that are central and vital to the role.

- Possesses comprehensive knowledge and the ability to design and manage an enterprise service, such as software development, in a large and complex environment.
- Identifies and resolves complex system issues in large-scale enterprise services. Consults
  with functional users to resolve problems in information technology services/software
  development and system performance.
- Leads technical staff in the installation, upgrade, and maintenance of software systems.
- Develops procedures, techniques, or programs to analyze or improve the performance and efficiency of software and hardware systems. Documents modifications made to the hardware, software, or procedures related to the systems.
- Writes advanced scripts and/or programs to assist with software development.
- Designs and develops new software systems.
- Works with vendors and/or management to design, develop, enhance, and implement enterprise solutions.
- Carries out larger technical tasks, and writes summaries of technical project work.
- Works with technical and functional staff to design and develop systems integrations.

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 3    |
| Job Category: P    | Job Level: 7            |
| FLSA Status: E     | Job Code: E03002        |

- Designs, plans, develops, configures, and implements solutions to ensure the high availability of services if a major disruption is caused by system issues or large-scale disasters.
- Responds to inquiries from other departments and collaborates with external departments.
   Documents all technical work in user guides for future reference.
- Contributes to technical projects, as part of a cross functional team.
- Supports the confidentiality, integrity, and availability of University information as part of the overall University Information Security Program.
- Performs related work as required.

### **MINIMUM QUALIFICATIONS**

- Associates degree
- Eight years of related experience OR
- Bachelor's degree
- Six years of related experience OR
- Ten years of related experience

#### **COMPETENCIES**

## Knowledge of:

- Programming languages
- Software systems and tools, development methodologies, and techniques
- Data management
- Various operating systems
- Network technologies
- Application performance and security
- General Information Technology functions, capabilities and trends
- Project management and software development life cycle

| Occupational Group | Information Technology  |
|--------------------|-------------------------|
| Job Family         | Enterprise Applications |
| Job Path           | Software Development    |
| Job Title          | Software Developer 3    |
| Job Category: P    | Job Level: 7            |
| FLSA Status: E     | Job Code: E03002        |

## Skill in:

- Planning and organization
- Troubleshooting
- Developing and maintaining effective and appropriate working relationships
- Critical thinking, problem solving and analysis

## Ability to:

- Provide technical training and guidance
- Communicate effectively through both oral and written means
- Respect diversity and work collaboratively with individuals of diverse cultural, social and educational backgrounds
- Prepare clear documentation
- Maintain the confidentiality of information and professional boundaries