Position Title: **Assistant Software Engineer**
Organizational Unit: Center for Imaging Science, College of Science
FLSA Status: Exempt

BASIC FUNCTION:

Assists in the development and maintenance of software programs applied to technical, scientific or engineering problems. This assistance may include actual code development, documentation preparation, web development, unit testing, and software debugging. Provide technical direction and mentoring to more junior software engineers, including students.

MINIMUM QUALIFICATIONS*
* Substitution of relevant education or experience for stated qualifications may be considered.

Knowledge, Skills, and Abilities:

- Introductory understanding of software development techniques and practices.
- Basic knowledge of a high level language (e.g. FORTRAN, C, C++, or Java).
- Basic level of proficiency in a computer operating system such as NT, Unix, or VMS.
- Basic knowledge of software support products such as text editors, debuggers, or email.
- Good verbal and written communication skills.
- Ability to establish and maintain effective professional working relationships.
- Basic knowledge in at least 2 of the following areas:
    - Any physical science (e.g., physics, imaging science, chemistry, color science, etc.) , mathematics, or engineering discipline
    - Compiler design
    - Operating and network system design
    - Distributed processing/computing
    - Client/server protocols
    - OO development methodologies
    - Scripting languages
    - Configuration Management
    - Algorithm design
    - Relational/OO database technology
    - Data structure selection
    - Software Testing Methodologies
    - Artificial Intelligence
    - Graphical User Interfaces
    - Web application development

Education

- Completion of entry/introductory level college or commercial courses in computer science or programming.

Experience
Completed development and test of simple software programs in an instructional environment such as software programming courses.

*Duties and Responsibilities**
* See annual performance goals and objectives for complete list

An **Assistant Software Engineer** will participate in making modifications and enhancements to very large and technically complex software systems. To support this effort, a software engineer will:

- Assist in determining the effort and time that will be required to carry out assigned tasks.
- Complete assigned tasks in an accurate, robust, well documented (code, user info, test info), well - tested (on multiple platforms) manner according to a defined schedule.
- Assist in code reviews; reviews will include software changes, test plans, user release notes, and any other pertinent information.
- Document efforts with appropriate mechanisms.
- Keep the project lead appraised of any problems or schedule slips as soon as they are apparent.
- Assist in developing new regression tests for new software that is developed.
- Follow all defined guidelines for software development/maintenance and deliveries.
- Attend subsystem meetings and contributes productively to action items and their resolution.
- Keep technically abreast in software development and maintenance areas
- Provide technical direction and mentoring to more junior software engineers, including students.

Definitions:
A **basic** level of expertise can be accomplished through the successful completion of a course in a specific area or a curriculum in a general field. This level would be assigned to someone who understands the basic topics, principles or practices within an area but has not practiced these principles in a non-class environment.

A **working** level of expertise can be accomplished through the successful completion of a curriculum in an area. This level would be assigned to someone who understands complex topics, principles or practices within an area but has not practiced these principles in a non-class environment.

Center Approval:
HR Approval:
Effective Date:
Revised Date(s):
∞.