## Adjunct Instructor – Bioinformatics Course

### a. Program/Course Specific Qualifications for the Current Open Position

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<tr>
<th><strong>Job Summary</strong></th>
<th>Teach a 10-week distance learning graduate course at least once a year, in the Bioinformatics Master’s degree program.</th>
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| **Relevant Course(s):** | 1. [RBIF112: Mathematical Modeling for Bioinformatics](#)  
2. [RBIF113: Biological Data Integration](#) |
| **Subject Matter Qualifications** | **General qualifications**  
- Experience in drug discovery/development is preferred but not required.  
- Strong scripting knowledge/skills; courses generally involve R, and Perl or Python.  
- Good written communication skills and enthusiasm for teaching.  

1. **Mathematical Modeling for Bioinformatics**  
   - Minimum of 4 years of experience in using biological data mining and prediction techniques in a cutting edge research environment.  
   - Experience implementing various modeling and prediction techniques, including linear and nonlinear regression, principal component analysis, support vector machines, self-organizing maps, neural networks, set enrichment, Bayesian networks, model-based analysis, and geneset/pathway/network analysis.  
   - Strong statistics scripting/programming experience.  

2. **Biological Data Integration**  
   - Minimum of 4 years of experience in algorithms and techniques for integration of public and proprietary bioinformatics data in a cutting edge research environment.  
   - Experience with public data resources (e.g., NCBI, Ensembl, UCSC, Broad), relational databases, and methods of data transfer and ontologies (e.g., BioPax, XMLs). |

### b. General Qualifications:

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<tr>
<th><strong>Job Title</strong></th>
<th>Graduate Professional Studies, Adjunct Instructor</th>
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<td><strong>General Job Responsibilities</strong></td>
<td>Depending on a specific course's needs:</td>
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| **for GPS Adjunct Instructors** | • Review/refine a course syllabus to include instructor-specific contact information and course policies.  
• Modify an existing course syllabus as necessary to realize revised course and weekly outcomes, following program chair guidance.  
• Develop a course syllabus for a new course, following our syllabus template and course standards.  

Develop online content and other course materials in support of course and weekly outcomes, including:  
• Content that supports and enhances required readings for the course; includes the author's experiences and perspectives on key points; aligns with the associated weekly objectives and outcomes.  
• Assignments/assessments that demonstrate the course and weekly outcomes.  

Create/refine the course site in the learning management system, LATTE (Moodle), following GPS course site standards.  

Deliver the online course consistent with the corresponding Rabb School / GPS Online Course Standards.  
• Participate actively in the online discussions: sharing experiences and perspectives; probing students with questions that require critical thinking skills; highlighting key learning points; answering student questions.  
• Provide relevant and timely feedback on submitted student work, including participation.  
• Compile and report grade-related information to students and administration.  
• Inform and discuss student issues with GPS staff members as applicable.  

Adhere to all GPS Instructor policies and procedures, as defined in the Instructor Handbook.  

Participate in regular instructor meetings, face-to-face and/or virtually, and contribute to process improvement efforts, including the regular self-evaluation of course outcomes, assessments, and their alignment.  

| **General Skills for GPS Instructors** | Strong interpersonal skills when relating to students  
Effective written communication skills, including the abilities to:  
• Convey complex topics in one's subject-matter to others  
• Project a professional and appropriate online tone |
- Moderate online discussions to promote in-depth engagement in course topics
- Provide useful feedback to students via their graded work

**Time management skills**

- Instructors must be able to devote adequate time to courses, communicating timely feedback, engaging regularly in discussions, and responding to student correspondence in a timely manner

### General Qualifications for GPS Instructors

- PhD degree or above in related field preferred
- At least 5 years experience in related field
- Teaching experience preferred
- Online teaching and/or learning experience preferred