# Adjunct Faculty – Bioinformatics Course

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

<table>
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<tr>
<th>Job Summary</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

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<tr>
<th>General qualifications</th>
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| 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:

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Graduate Professional Studies, Adjunct Faculty</th>
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<td>General Job Responsibilities</td>
<td>Depending on a specific course's needs:</td>
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| **for GPS Adjunct Faculty** | **Review/refine a course syllabus to include faculty-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 Faculty policies and procedures, as defined in the Faculty Handbook.  
| | Participate in regular faculty 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 Adjunct Faculty** | **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**

- Faculty 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

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<tr>
<th><strong>General Qualifications for GPS Adjunct Faculty</strong></th>
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<tr>
<td>• PhD degree or above in related field preferred</td>
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<td>• At least 5 years experience in related field</td>
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<td>• Teaching experience preferred</td>
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<td>• Online teaching and/or learning experience preferred</td>
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