2005 BioQUEST Workshop:
Investigating Interdisciplinary Interactions

Saturday, June 11

1:00 PM **Welcome, Introductions, and Overview** **Mathers, Pearsons**
John R. Jungck, BioQUEST Curriculum Consortium

1:45 PM **Curriculum Reform Projects:** **Mathers, Pearsons**
What we do and why we do it
Priscilla Laws, Workshop Physics
Nancy Baxter Hastings, Workshop Mathematics
Brock Spencer and George Lisensky, ChemLinks
Ethel Stanley, BioQUEST Curriculum Consortium

3:00-3:30 PM Break (snacks available in Chamberlin 215 throughout the week) **Café Bio, Chamberlin 215**

Phase I
During this phase, participants take on the role of students while exploring interdisciplinarity between physics, mathematics, chemistry and biology. Based on these explorations, participants will develop and present team projects on Monday afternoon.

3:30-5:30 PM **Interdisciplinary Education,** Session A

Group 1: Workshop Physics **Chamberlin 214**
Leader: Priscilla Laws, Dickinson College
Faculty users: Tamar More, University of Portland
Seamus Lagan, Whittier College
BioQUEST Staff: Tia Johnson and Paulo Barreiro Sanjines, Beloit College

Group 2: ChemLinks **Chamberlin 400**
Leaders: Brock Spencer, George Lisensky, Beloit College
Faculty user: Sharon Anthony, The Evergreen State College
BioQUEST Staff: Stephanie Gage, Beloit College

6:30 PM Wine and hors d'oeurvres **Moore Lounge, Pearsons**

7:15 PM Dinner **Moore Lounge, Pearsons**

8:15-9:30 PM **Panelist of Adopters and Adapters of the Curriculum Reform Projects** **Moore Lounge, Pearsons**

Moderator: Raquell Holmes, Boston University
Workshop Physics: Tamar More, University of Portland
Seamus Lagan, Whittier College
Workshop Mathematics:
ChemLinks: Sharon Anthony, The Evergreen State College
BioQUEST Curriculum Consortium: Stacey Kiser, Lane Community College and Joyce Cadwallader, St. Mary-of-the-Woods College, Anton Weisstein, Truman State University

Sunday, June 12

8:00 AM Continental breakfast **Café Bio, Chamberlin 215**

9:00 – 11:00 AM **Interdisciplinary Education,** Session B

Group 1: BioQUEST (Genetics, Biochemistry, Bioinformatics, and Evolution) **Chamberlin 202**

Leader: John R. Jungck, Beloit College
Faculty user: Anton Weisstein, Truman State University
Da Young Chung, Beloit College

Group 2: Workshop Mathematics **Mayer 222**
Leader: Nancy Baxter Hastings, Dickinson College
Faculty user:
BioQUEST Staff: Tia Johnson and Stephanie Gage, Beloit College

12:00-1:00 PM Lunch and free time **Commons**

1:00-3:00 PM **Interdisciplinary Education,** Session C

Group 1: ChemLinks **Chamberlin 400**
Leaders: Brock Spencer, George Lisensky, Beloit College
Faculty user: Sharon Anthony, The Evergreen State College
BioQUEST Staff: Stephanie Gage, Beloit College

Group 2: BioQUEST (Ecology and Investigative Case-Based Learning) **Mayer 222**
Leaders: Ethel Stanley and Robin Greenler, Beloit College
Faculty users: Stacey Kiser, Lane Community College and Joyce Cadwallader, St. Mary-of-the-Woods College
BioQUEST Staff: Da Young Chung, Beloit College

3:15 – 5:15 PM **Interdisciplinary Education,** Session D

Group 1: Workshop Mathematics **Mayer 222**
Leader: Nancy Baxter Hastings
Faculty user:
BioQUEST Staff: Anton Weisstein, Truman State University, Stephanie Gage, Beloit College

Group 2: Workshop Physics **Chamberlin 214**
Leader: Priscilla Laws, Dickinson College
Faculty users: Tamar More, University of Portland
Seamus Lagan, Whittier College
BioQUEST Staff: Tia Johnson and Paulo Barreiro Sanjines, Beloit College

5:15 PM Dinner **Commons**

6:30-9:00 PM **Mini project work session**

Monday, June 13

8:00 AM Breakfast **Commons**

9:00 AM **Data Acquisition, Visualization, and Modeling in Excel Using an Enhanced Toolbar and Visual Basic for Applications (VBA)** **Mathers, Pearsons**
Rama Viswanathan, Beloit College
(George Lisensky with Excel interface to miniature spectrophotometer)

10:30-12:00 **Mini project work session**

12:00-1:00 PM Lunch **Commons**

1:00-3:30 **Mini project work session**

3:30-5:45 PM **Mini project poster presentation**

5:45 PM Dinner **Commons**

7:30 PM **CyberInfrastructure: Challenges and Opportunities for Undergraduate Education** **Mathers**
Roscoe Giles, Boston University, Center for Computational Science, co-chair of the Education, Outreach, and Training Partnership for Advanced Computational Infrastructure (EOT_PACI)

Tuesday, June 14

Phase II
During the second phase of the workshop, participants take on the role of adopters, adapters and reviewers to consider the potential of existing materials and tools.

8:00 AM	Breakfast	**Commons**
9:00 AM-Noon	**Overview of group project and materials development and expanded individual introductions**	**Mathers, Pearsons**
12:00-1:30 PM	Lunch	**Commons**
2:00 – 5:30	**Group formation and resource exploration** **Sign up to meet with Curriculum Project staff** Meet with Project Staff of the Curriculum Projects in Interinstitutional Interdisciplinary teams	
5:30 PM	Dinner (We recommend that you arrive at Commons before 6:15.)	**Commons**
6:30-9:00 PM	**Group formation and resource exploration with BQ staff (cont.)**	

Wednesday, June 15

8:00 AM	Breakfast	**Commons**
9:00-11:00 AM	**Visualizing Change using Quicktime** George Lisensky, Beloit College	**Mathers, Pearsons**
11:00 AM-Noon	**Group 1**: Group project work session **Group 2**: BioQUEST software laboratory	**Ruth Peterson Room**
Noon-2:30 PM	Lunch and free time	**Commons**
2:30- 3:30 PM	**Group 1**: BioQUEST software laboratory **Group 2**: Group project work session	**Ruth Peterson Room**
3:30- 4:00 PM	Break	
4:00-5:30 PM	**Modeling the cell cycle, new skills in undergraduate biology education.** Raquell Holmes, Boston University	**Ruth Peterson Room**
6:00 PM	Dinner (We recommend that you arrive at Commons before 6:15.)	**Commons**
6:30-9:00 PM	**Annual Learning Materials 4-H Show** Participants share curricular materials	**Mathers, Pearson**

Thursday, June 16

8:00 AM	Breakfast	**Commons**

Phase III
During the third and final phase of the workshop, participants work on the development of new curricular materials that are primarily applicable to undergraduate education. These projects are submitted online and displayed on our website for access by our broader BioQUEST community.

9:00-11:30 AM	**Group project work time**	
11:30-12:30 PM	Lunch	**Commons**
12:30-2:00 PM	**Student Interpretations of 2-D and 3-D Renderings** Ramon E. Lopez, Florida Institute of Technology	**Mathers, Pearsons**
2:00-5:30 PM	**Group project work time**	
6:00 PM	Picnic	**Logan Museum**
7:00 PM	Tour of Logan Anthropology Museum, Nicolette Meister	
7:30 PM	Tour of Wright Art Museum, Judy Newland	

Friday, June 17

8:00 AM	Breakfast	**Commons**
9:00-10:30 AM	**Hyperbolic Geometry and Fly Through Navigation of Structures Using GeoWall** Paul McCreary, Xavier University	**Mathers, Pearsons**
10:30-10:45 PM	Break	
10:45- 12:00	**Group project work time**	
12:00-2:00 PM	Lunch and free time	**Commons**
2:00-4:30 PM	**Group project work time**	
4:30-5:30 PM	**Interdisciplinary Science Education: Where Do We Go From Here?** John R. Jungck	**Mathers, Pearsons**
5:45 PM	Dinner	**Commons**
7:00-9:00 PM	**Music at Harry's Place** **The Harry C. Moore Pavilion**	**Riverside Park**

Saturday, June 18

8:00 AM	Continental breakfast	**Café Bio, Chamberlin 215**
8:30-12:00	**Group project work time**	
12:00-1:30 PM	Lunch	**Commons**
1:30-3:00 PM	**Group presentations, Session #1**	**Ruth Peterson Room**
3:00-3:30 PM	Break	
3:30-5:00 PM	**Group presentations, Session #2**	**Ruth Peterson Room**
5:00 PM	Dinner	**Commons**
7:00 PM	**Dessert at John Jungck's**	

Sunday, June 19

8:00 AM	Continental breakfast	**Café Bio, Chamberlin 215**
9:00-10:00 PM	**Evaluation**	**Ruth Peterson Room**
10:00-12:00	**Group presentations, Session #3**	**Ruth Peterson Room**
12:00-1:00 PM	Lunch	**Commons**

Van Galder Shuttle buses depart for O'Hare Airport at 12:55 and 2:25 and 3:55 from the Ramada Inn in South Beloit. You may check http://www.vangalderbus.com/vgschedule.html to see when each bus arrives at O'Hare. We will begin running a shuttle van to the Ramada at 12:15 p.m. You should plan to arrive at the O'Hare airport at least 1.5 hours prior to departure.