Faculty guide for Project-based learning

**Introduction:**

Project-based learning is a teaching method centered around a project in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging, and complex question, problem, or challenge.

It is based on principles of adult learning and a way of active learning.

Project-based learning emphasizes learning activities that are long-term, interdisciplinary and student-centered.

**Steps:**

Step 1: Identify and clarify driving question or challenge.

Step 2: Define the problems to be discussed and need to know about the question under consideration.

Step 3: Enquiry and Innovation: Doing research and getting hand on experiences by taking interviews, creating awareness, etc

Step 4: Apply 21st. century skills

Step 5: Student’s voices and choices

Step 6: Feedback and revision

Step 7: Project presentation

**Process:**

1. Student groups determine their projects, in so doing, they engage student voice by encouraging students to take full responsibility for their learning. This is what makes PBL constructivist. Students work together to accomplish specific goals.

2. Students use technology as a tool to communicate with others regarding information gathered by teachers, a book, research or broadcast. Technology makes it possible for students to think actively about the choices they make and execute. Every student has the opportunity to get involved either individually or as a group.

3. Instructor role in Project Based Learning is that of a facilitator. He/She develops an atmosphere of shared responsibility. The Instructor must structure the proposed question/issue so as to direct the student's learning toward content-based materials.

4. The instructor must regulate student success with intermittent, transitional goals to ensure student projects remain focused and students have a deep understanding of the concepts being investigated.
5. The students are held accountable to these goals through ongoing feedback and assessments

6. The instructor uses these assessments to guide the inquiry process and ensure the students have learned the required content.

7. Once the project is finished, the instructor evaluates the finished product and learning that it demonstrates

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**Faculty Guide**

**Project Based Learning**

**Faculty:**

**Duration:** 2months: 8 weeks

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<tr>
<th>Duration</th>
<th>Activity</th>
<th>Person</th>
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| 1 -2 week | Driving question or challenge  
Discuss two three major topics with references, look at the feasibility and finalize one topic for project | Students and facilitator | References, reading |
| 3 week | Need to know  
Plan the working in team.  
Assign specific objectives to be fulfilled by the members | Students | References, books, cases etc |
| 4-5 week | Inquiry and Innovation  
- Create research question  
- Study design with appropriate framework  
- Analyze the results  
- Take specific measures for eg. Awareness, some innovations in diagnosis etc… | Students doing research under faculty guidance | Survey using google form  
Interviews  
Field work  
Role play  
Flash mobs  
Street play etc |
<table>
<thead>
<tr>
<th>6-7 week</th>
<th>21st century skills</th>
<th>Students of technology group</th>
<th>Powerpoint slides, videos</th>
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<tbody>
<tr>
<td></td>
<td>• Prepare presentation using variety of A-V aid</td>
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<td></td>
<td>• Creating innovative ways of presenting data</td>
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<tr>
<td>8 week</td>
<td>Student voices and choices with Feedback and revision</td>
<td>All team members</td>
<td>Powerpoint slides</td>
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<td></td>
<td>• Presentation in flow</td>
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<td></td>
<td>• Taking feedback from colleagues, seniors, guide, other faculty members</td>
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<td>• Revisions as per recommendations</td>
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<td>Publically presented product.</td>
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<td>Symposium competition Paper publication Poster presentation at conference</td>
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References:

**Student evaluation of the Project Based Learning Course**

Students to respond using a 5-point scale.

Scale - from 1 - strongly agree to 5 strongly disagree

1 - Strongly agree, 2 - agree 3 - neutral 4 – disagree 5- strongly disagree

1. The course helped me to learn to obtain information from a variety of sources.
2. I feel that I can apply the general principles I learned to other similar problems.
3. I am comfortable with working in groups.
4. I do not feel reluctant to confess my ignorance on specific issues.
5. I am confident that I can analyze a research problem.
6. I am confident that I can set appropriate learning objectives.
7. I feel comfortable sharing information with others.
8. I can assess my own performance adequately.
9. The written project summary helped me relate the concepts covered in that project.
10. Compared to other classes in my course,
    1 - learned much more than usual, to 5 - much less than usual.
11. On the whole, the amount of effort required in the course was:
    1 - greater than usual, to 5 - less than usual.

12. Overall I would rate this course:
    1 - excellent to 5 - poor.