

# PEAR WORKSHOP

Adding an Online Peer Review or Group Assessment  
Component to Your Course

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# LAND ACKNOWLEDGEMENT

While we are coming together today in a virtual space, it is important to recognize the physical space that connects us and brings us together. The University of Guelph and its campuses are situated on the treaty lands of the Mississaugas of the Credit. We understand that these lands are connected by the Dish with One Spoon Wampum and continue to be home to diverse communities of First Nations, Inuit and Métis Peoples. By acknowledging the land, we reaffirm our commitment to decolonization and reconciliation with Indigenous peoples and our responsibility to the land on which we live, learn, and play.

# AGENDA

- PEAR Basics
- PEAR Projects
- PEAR Grading Forms
- Peer Review Benefits
- PEAR's Peer Review Process
- Group Work - Value and Challenges
- PEAR's Group Assessment
- PEAR's Distribution of Group Effort
- PEAR Support
- Q&A / Workshop Period

# PEAR BASICS

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# PEAR BASICS

- **What is PEAR?**
  - **PEAR** = **P**eer **E**valuation, **A**ssessment, and **R**evue
  - Online application that integrates with CourseLink
  - Facilitates both peer review and group assessment
  - Created in 2010 at U of G and developed over the years since to meet the needs of U of G faculty

# PEAR BASICS

- **Who is using PEAR?**
  - Exclusive to UofG & UWaterloo (without LMS integration)
  - With over a decade of proven success, it has become UofG's secret to efficient & effective peer review
  - In 2021, PEAR produced 630 projects across 283 courses, with over 21,000 unique participants
  - If teaching a 3<sup>rd</sup> or 4<sup>th</sup> year course, there is a good chance your students will have already used PEAR

# PEAR BASICS

## PEAR's 3 Basic Functions

- **Peer Review**
  - Student Submission (by students or groups of students)
  - Review(s) of Submissions (by peers/instructors)
  - Evaluations of Reviews (by instructor/submitters)
  - Final Submission (students) / Final Review (instructor)
- **Group Assessments**
  - Students assess their group members based on specific criteria using a grading form
- **Distribution of Group Effort**
  - Students receive a pool of points that can be divided up among group members to indicate each member's effort or contribution during the assignment

# PEAR BASICS

## PEAR Access

- Pear has two separate login pages:
  - PEAR Admin (instructors, TAs, and support staff)
    - <https://peartool.opened.uoguelph.ca/admin/>
  - PEAR User (students)
    - <https://peartool.opened.uoguelph.ca/user/>

## Access Tips:

- PEAR uses central login for access, but it is not SSO
- If you add a link to PEAR to your CourseLink site, be sure you add the PEAR User (student) login page
- Add a bookmark for yourself to the PEAR Admin page



# PEAR BASICS

## Incorporating PEAR into your Course

PEAR's 3 core functions can be easily integrated into most courses

1. If students are submitting major assignments via Dropbox...
  - Consider adding a **Peer Review** for a draft earlier in the semester through PEAR to improve the final submission
2. If you have group work occurring in the class in any fashion...
  - Consider adding a **Group Assessment** through PEAR to increase accountability among group members
3. If you have a group project, presentation, or performance...
  - Consider using a **Distribution of Group Effort** through PEAR to help provide unique grades to group members

# PEAR PROJECTS

What are they? How do they integrate with CourseLink?

# WHAT IS A PEAR PROJECT?

- A PEAR Project is essentially a container (like a folder)
- Each project is limited to a **single** Peer Review, Group Assessment, or Distribution of Group Effort activity
- Multiple projects can be associated with a single course (e.g., Assignment 1 Peer Review, Assignment 2 Peer Review)
- Projects connected to CourseLink course sites, allow:
  - Import of users & groups from CourseLink to PEAR
  - Export of PEAR scores to grade items in CourseLink
- Projects can also be copied as a starting point for other assignments in the course or for use in future courses

# PEAR PROJECT VISUALIZATION

## PEAR PROJECT

CODE\*1000 (01) F22  
Peer Review Assignment 1

### Stages Used

Submission  
Peer Review  
Instructor Evaluation

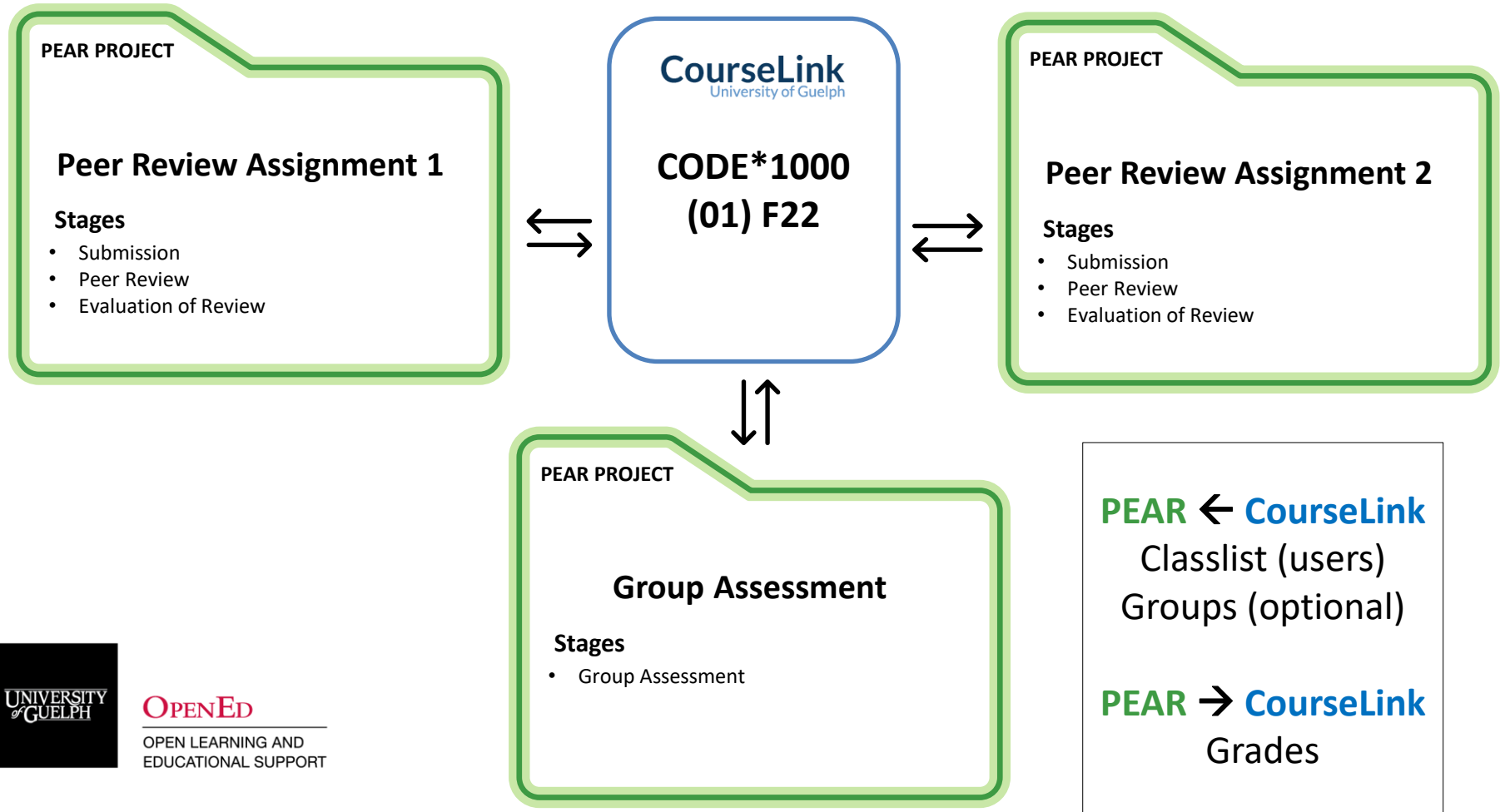
### Available to:

You (creator)  
Additional Instructors  
Teaching Assistants  
Students  
Groups

**Project End Date:** December 20, 2022



# PEAR PROJECT VISUALIZATION



# PEAR GRADING FORMS

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# PEAR GRADING FORMS

## What is a PEAR Grading Form?

- Simplified rubrics, but not presented in a table/grid rubric format
- Created independent of a project allowing them to be used/re-used in any project you create
- Can be copied and edited to provide a starting point or to build upon for future assessments
- Can be used for qualitative feedback or quantitative scores, or a combination of both

# PEAR GRADING FORMS

Grading forms provide the following criteria type options:

- **Group Header**
  - Organize/divide your criteria (Grammar, Content, etc.)
- **Comment**
  - Create a question or statement that requires a text answer
  - Not scored, but can be paired with a numeric criterion
- **Numeric**
  - A question or statement that requires a numeric answer
  - Answer is selected from a list of options (not entered manually)
  - You provide the score option range (e.g., 0-10) and set the increment (by 0.5 points, 1 point, 2 points, etc.)
  - Produces a score that is added to the total for the grading form
- **Select One From List**
  - Requires an answer selected from a provided list
  - You create the list options (like multiple choice or Likert scale)
  - Not scored, even if the list items include numbers



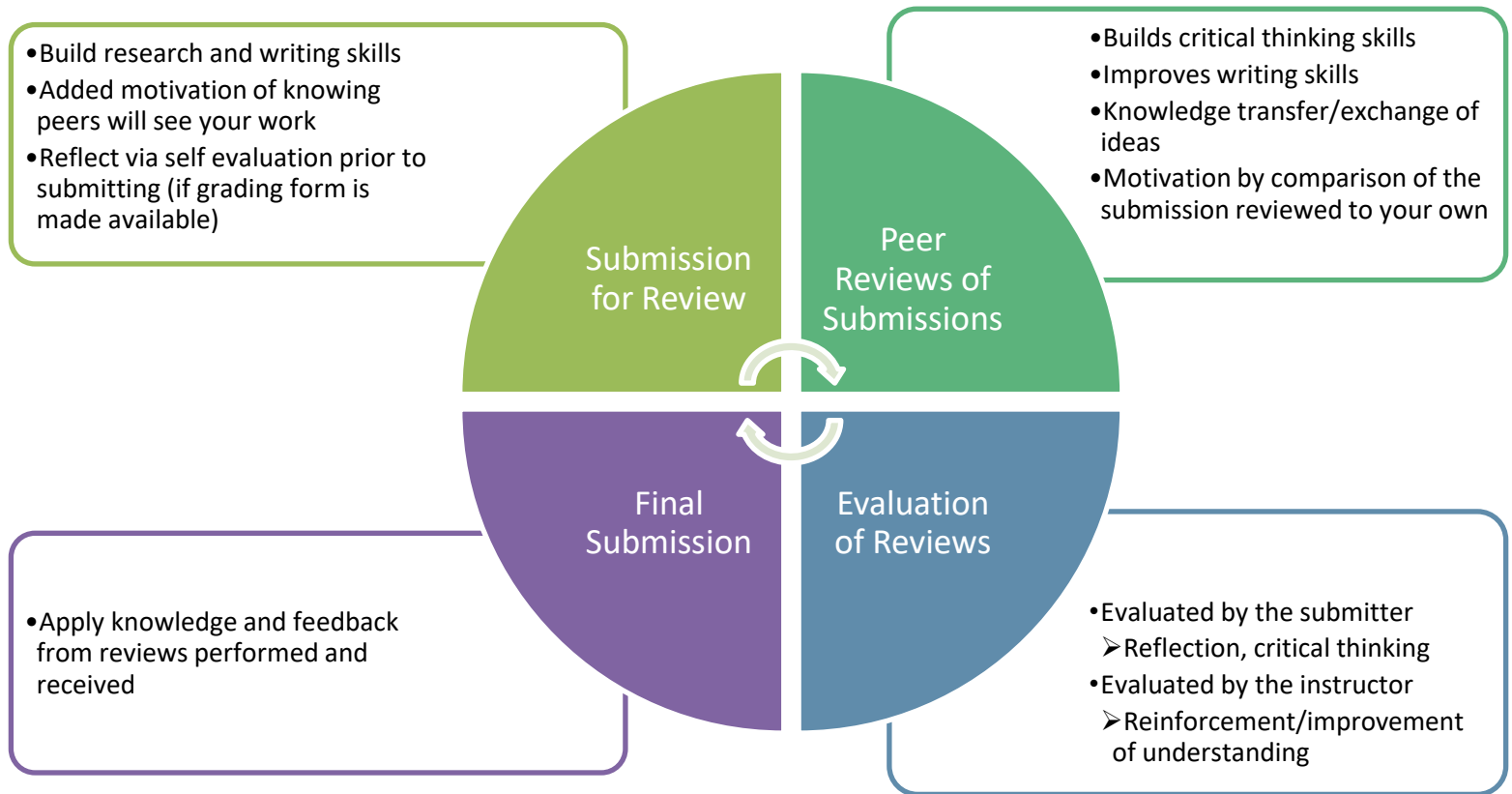
# PEER REVIEW BENEFITS

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# PEDAGOGY OF PEER REVIEW IN PEAR



# PEER REVIEW: BENEFITS

- **Improves student skills**
  - Writing
  - Research
  - Critical thinking
  - Reflection
- **Prepares students for academia**
  - Can simulate the peer review process of research journals, conference proposals, etc.
- **Can reduce workload for instructors/TAs**
  - Students perform initial reviews, provide feedback
  - Instructor evaluates reviews (optional)/assess final submission

# PEER REVIEW: SOTL RESEARCH

Peer review isn't new, so there is plenty of research and evidence of its benefits, here are a few selected readings:

- **From U of G (referencing PEAR):**
  - Yankulov, K. and Couto, R. (2012), Peer review in class: Metrics and variations in a senior course. *Biochem. Mol. Biol. Educ.*, 40: 161-168.  
<https://doi.org/10.1002/bmb.20592>
  - Ritchie KL. Thinking beyond the page: Getting more out of traditional writing assignments. *Teaching and Learning Innovation Journal*, 2012; Vol 15.
- **Other Scholarly Resources on Peer Review:**
  - Corbett, S. J., LaFrance, M., & Decker, T. E. (2014). Peer pressure, peer power: Theory and practice in peer review and response for the writing classroom. Southlake, TX: Fountainhead Press.
  - Garner, J., & Hadingham, O. (2019). Anonymizing the Peer Response Process: An Effective Way to Increase Proposed Revisions?. *Journal of Response to Writing*, 5(1). Retrieved from <https://journalrw.org/index.php/jrw/article/view/141>

# PEAR'S PEER REVIEW PROCESS

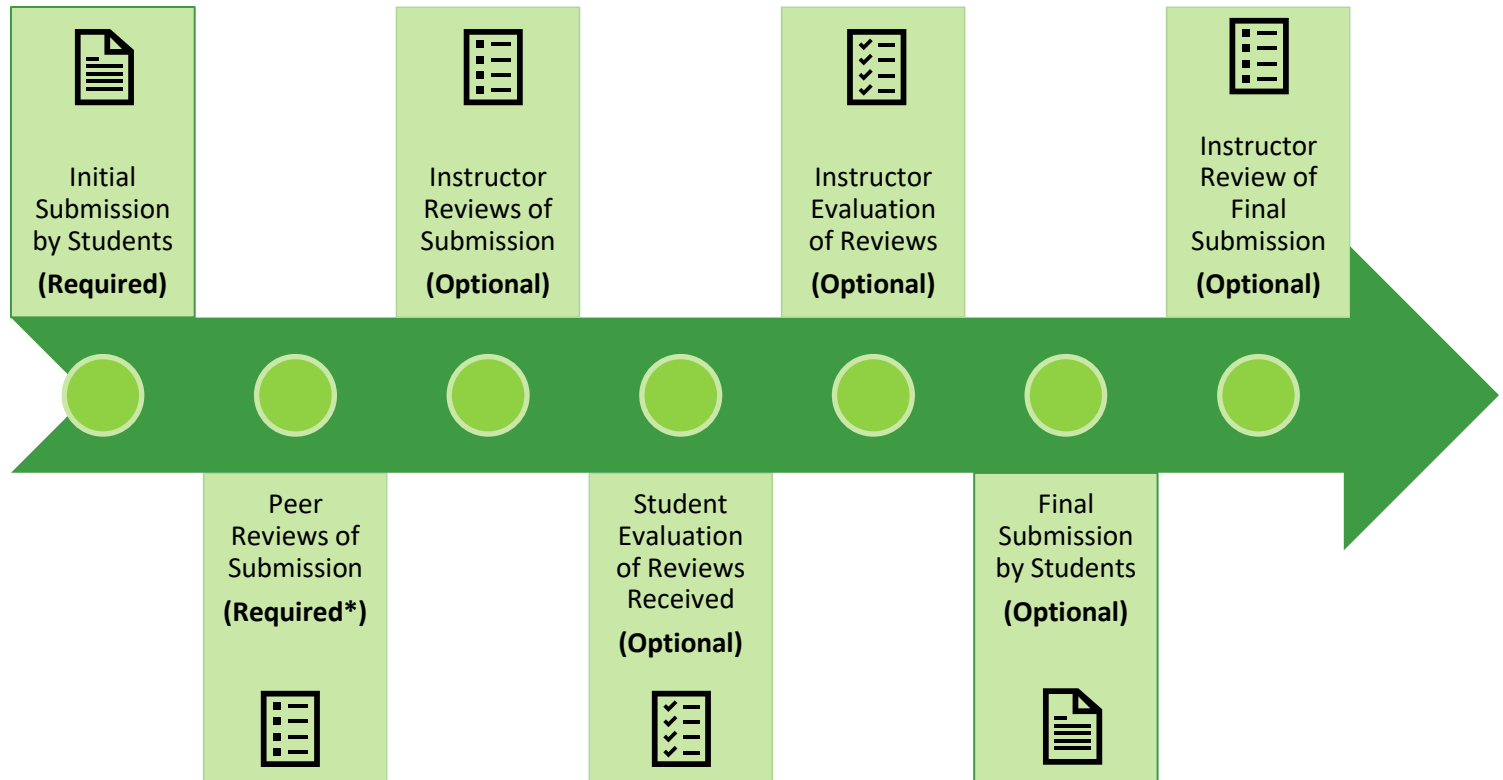
## Submission, Review, and Evaluation Options

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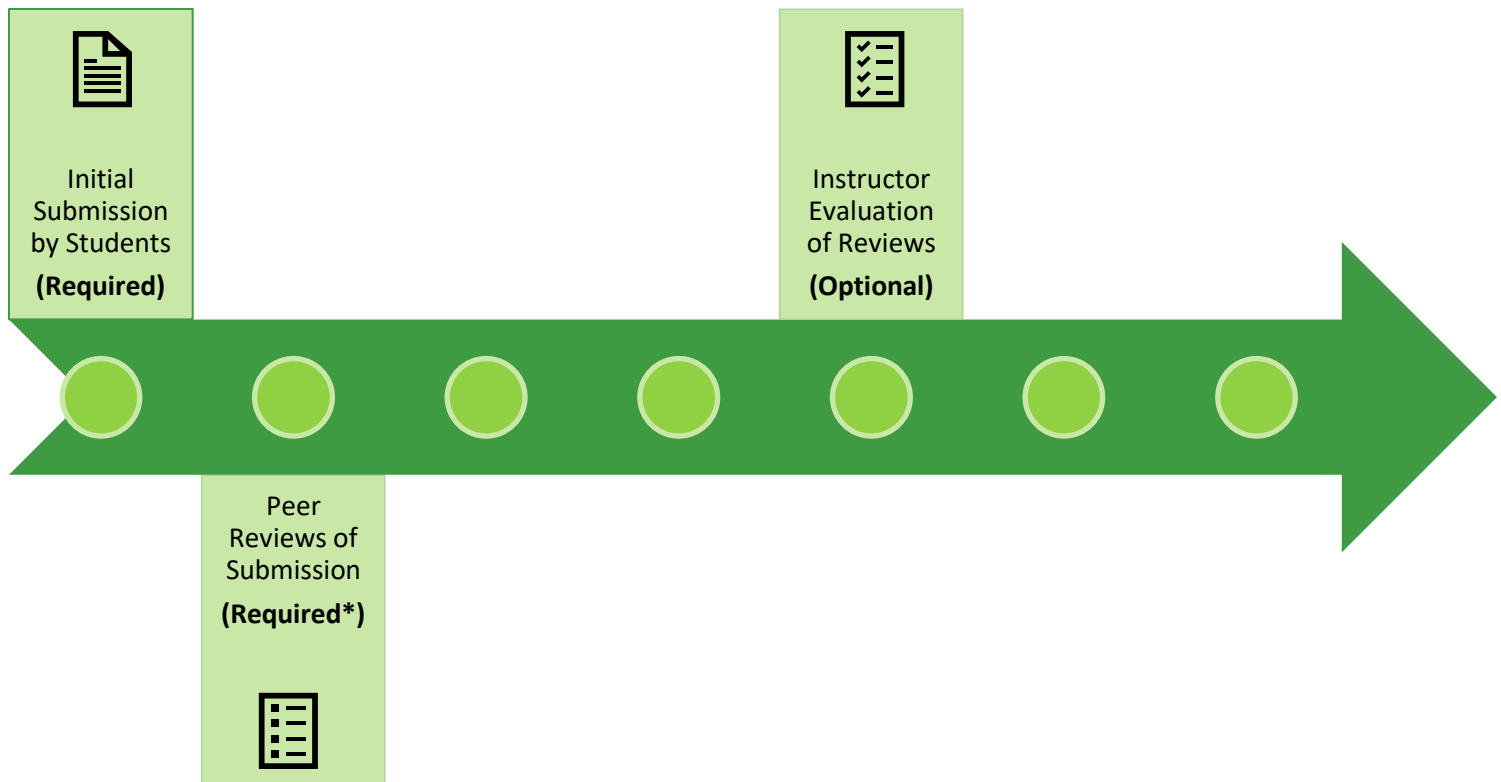
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# PEAR'S PEER REVIEW PROCESS



# THE MOST COMMON PEAR PEER REVIEW



Students Submit > Students Review > Instructor Evaluates Reviews

Final submission occurs via a CourseLink Dropbox.

# INITIAL SUBMISSION STAGE





# INITIAL SUBMISSION STAGE

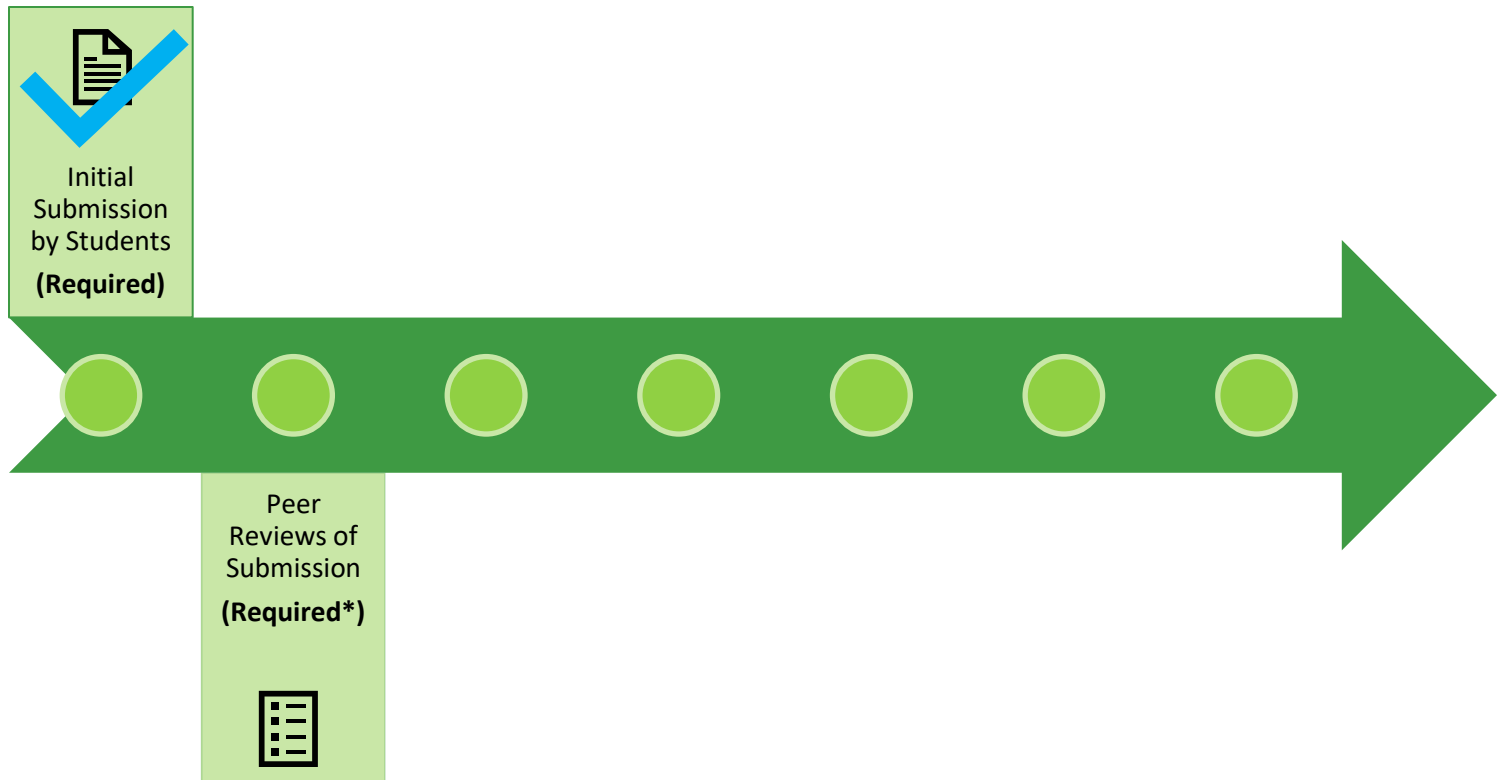
- Required for projects with review stages
- At least 1 file submission is required
  - Reviewing presentations or performances will require a file be submitted (slide deck, outline, summary, etc.)
- Only accessible by project participants with the student role
- Submissions are always made by “groups”
  - ***Groups of 1 are used for individual submissions***

# INITIAL SUBMISSION STAGE

Works similarly to setting up a Dropbox folder on CourseLink

- Add **Instructions** (optional)
- Set a **Start Accepting** date
- Set a **Submission Due** date
- Set an **Accept Until** date
- Set the **Allow Re-submissions** (until due date) option
- Set the **Confirm with Email** option
- Set the number of **Required Files** (up to 4), file types you are requiring for those files (pdf, docx, pptx, etc.), and which of those files should be available to reviewers

# PEER REVIEW OF SUBMISSION STAGE



# PEER REVIEW OF SUBMISSION STAGE

- Requires a submission stage
- Submissions being reviewed can be set to anonymous
- Reviews being performed can be set to anonymous
- Reviews are typically performed via a selected PEAR grading form, which (if scored) can be exported to a grade item in your CourseLink site
- Reviews can also be submitted as files (e.g., Word document)
  - No score can be associated with a file
  - A PEAR grading form is required to produce a score

# PEER REVIEW OF SUBMISSION STAGE

- Instructors set how many reviews are required by each reviewer
  - Example: If reviewers are assigned 2 reviews each and there are 3 reviewers and 3 submissions, then each reviewer will be assigned 2 different submissions to review
    - Owen reviews Carolyn and Rich
    - Carolyn reviews Owen and Rich
    - Rich reviews Carolyn and Owen
- PEAR distributes review assignments for submissions as evenly as possible
- No student is assigned their own submission to review
- Some submissions may receive more reviews than others, but all students will perform the required number of reviews

# PEER REVIEW OF SUBMISSION STAGE

- Instructors set how many reviews are required by each reviewer
  - Example: If you have 10 submissions, 2 reviews each and there are 20 reviewers, then each reviewer will have 2 submissions to review
  - C
  - C
  - F
- PEAR distributes review assignments as evenly as possible
- No student can review their own submission
- Some students may have more review assignments than others, but all students will perform the required number of reviews

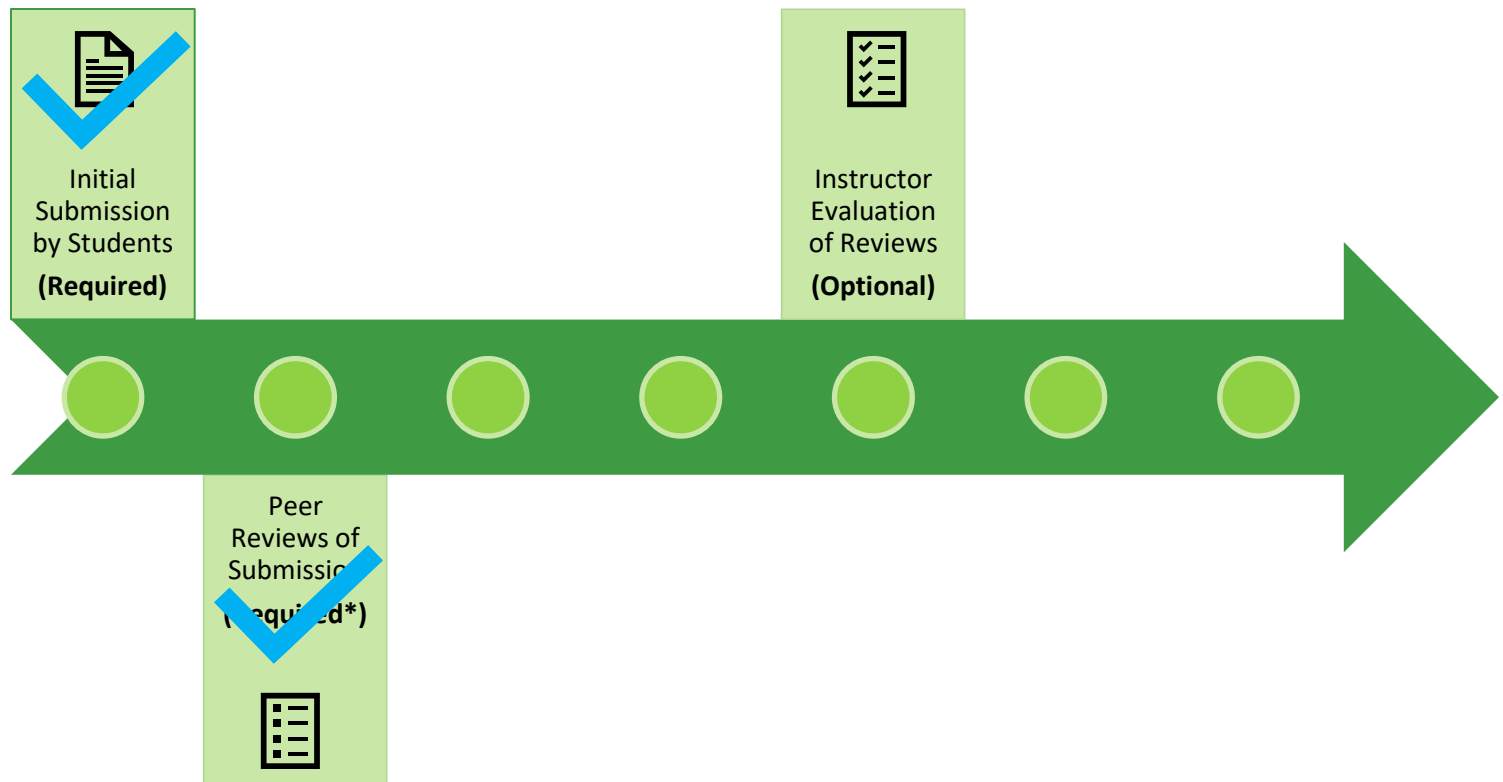


## PEAR Review Assignments

**PEAR's review assignments are manually triggered. The instructor must click a button to assign reviewers to submissions after the submission stage is closed & before the review stage opens.**

*Tip: Add a reminder in your calendar!*

# INSTRUCTOR EVALUATION OF REVIEWS STAGE



# INSTRUCTOR EVALUATION OF REVIEW STAGE

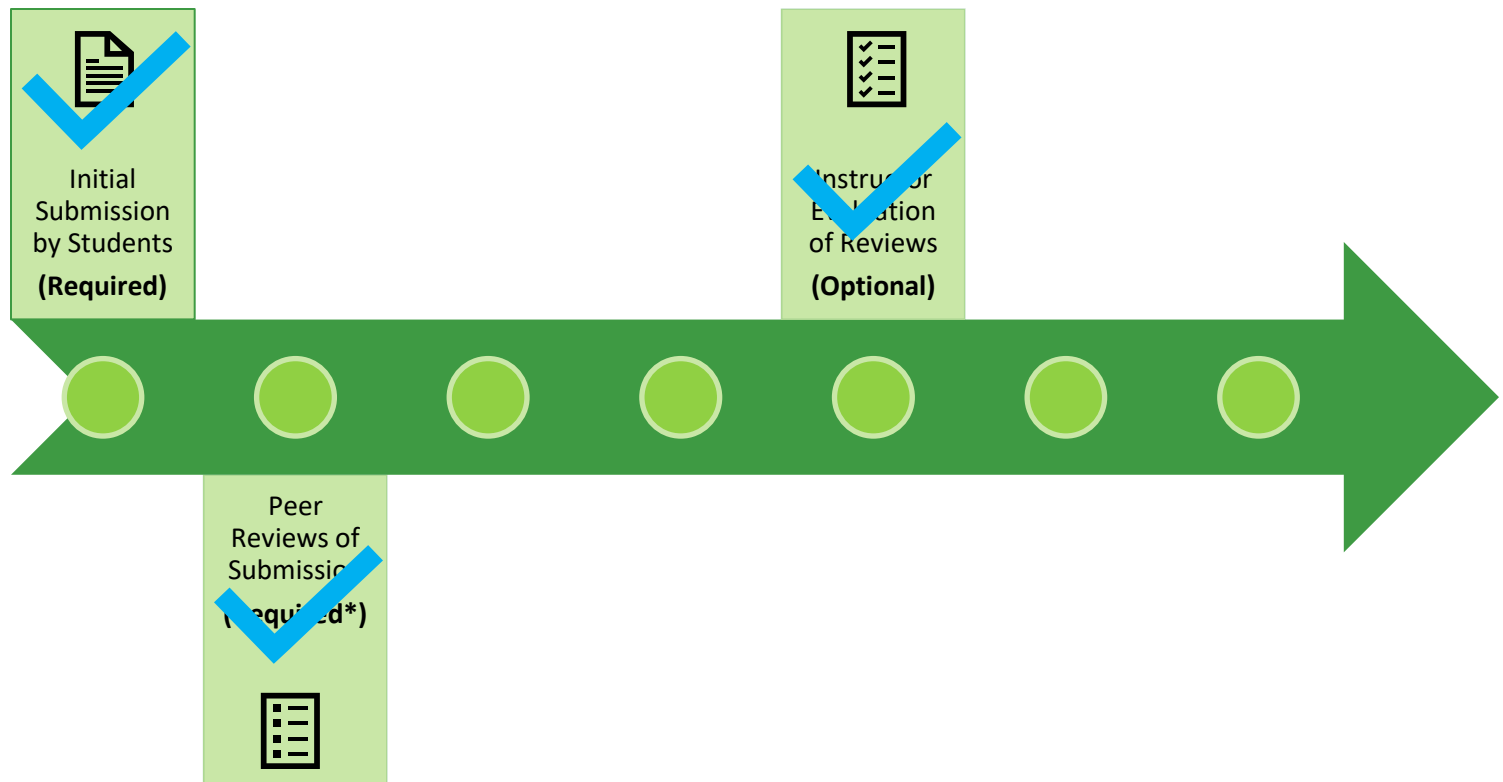
- Requires a review stage
- Unlike reviews, there is no need to assign evaluators to reviews
  - Instructor(s)/TA(s) can select any review to evaluate
- Evaluated using a PEAR grading form
  - If numeric criteria are used, provides a score that can be associated with a CourseLink grade item



# INSTRUCTOR EVALUATION OF REVIEW STAGE

- 1 evaluation is required for each student review of a peer's submission
  - This can result in a lot of evaluations in larger courses (300 students with 3 reviews each = 900 evaluations)
- The task of performing evaluations can be shared with TAs or additional instructors
  - Since reviews cannot be assigned to specific evaluators, coordination outside of PEAR is required
  - Keeping the evaluation grading form simple can speed up the process, while still providing feedback and accountability

# INSTRUCTOR EVALUATION OF REVIEWS STAGE



The Peer Review part of the assignment is now effectively completed. A Final submission can be made to a Dropbox folder on CourseLink and assessed by the instructor/TA(s).

# GROUP WORK VALUE AND CHALLENGES

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# THE VALUE OF GROUP WORK

## **The value of having students work in groups:**

- Developing important work-relevant skills such as planning & time management, collaboration, communication skills, etc.
- Tackling more complex problems that would be more challenging individually
- Stimulating creativity
- Gaining insight into their own strengths and weaknesses

## **The value of group work for instructors:**

- Provide students with more complex & authentic problems to work on (two heads are better than one)
- Useful when the number of topics is limited
- May reduce instructional team grading time (grade 20 groups of 10 students vs. grade 200 individual students)

# GROUP WORK AND ASSESSMENT CHALLENGES

## **Not all group members may put in the same effort**

- Giving all students in a group an equal grade may not be appropriate in all cases
- It can be difficult, especially in large classes, for an instructor to be involved enough to understand group dynamics across many different groups
- Strategies such as using a group contract can help to encourage students to work in an equitable way
- A group contract on its own can be difficult to enforce
- Asking students to evaluate each other openly often results in unrealistic assessments (fear of reprisal for poor assessments, not wanting to hurt feelings, etc.)

# A POTENTIAL GROUP ASSESSMENT SOLUTION

## Enter PEAR and its 2 Group Assessment Options

- A PEAR project associated with your CourseLink course site can import the groups you are already using!
- In PEAR you can use either a **Group Assessment** or a **Distribution of Group Effort** to allow students to evaluate each other's contributions (anonymous option)
- The scores group members receive can be exported to CourseLink and used as an independent grade, or to modify a groups' assignment grade for individuals within that group based on the scores from PEAR

# GROUP ASSESSMENT IN PEAR

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## WHAT IS GROUP ASSESSMENT IN PEAR?

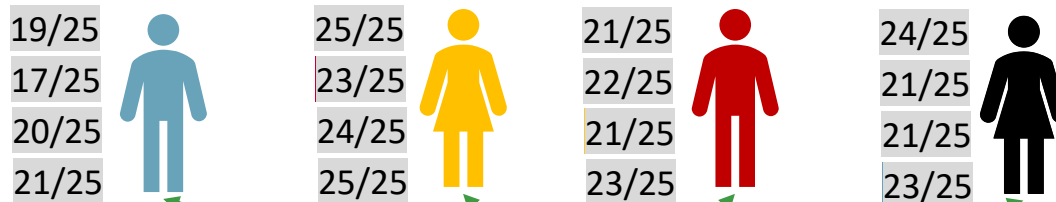
- Provides group members with a simple way to assess each other's performance for any group activity
  - Assignment, presentation, long term project, etc.
- Students have a window to start and complete an assessment of each member of their group
- Students use a grading form created in PEAR by the instructor to perform a guided/intentional assessment
- The grading form usually includes numeric criteria to allow a score to be provided
- Typically, the average group assessment score for each group member is exported to a CourseLink Grade item



# GROUP ASSESSMENT VISUALIZATION

## Group Members

Average **19.25/25 (77%)**    **24.25/25 (97%)**    **21.75/25 (87%)**    **22.25/25 (89%)**



\*Self evaluations are optional



PEAR Grading Form



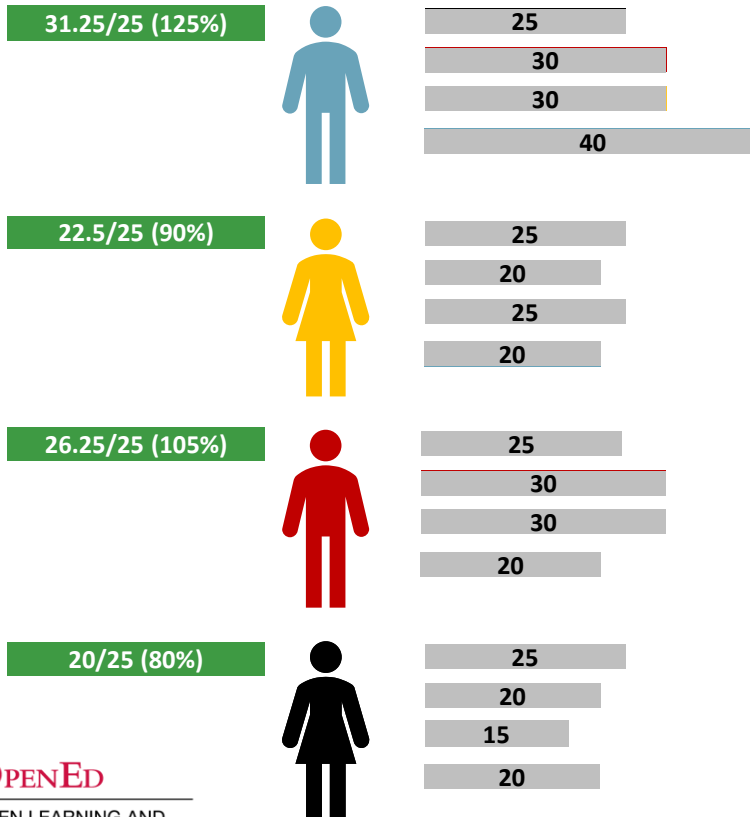
# DISTRIBUTION OF GROUP EFFORT IN PEAR

# WHAT IS DISTRIBUTION OF GROUP EFFORT IN PEAR?

- Provides a simple/quick way to have group members assess each other's performance for any activity
- Students have a defined window of time to start and complete their distribution of group effort
- Students receive a pool of points based on the value per group member set and the number of group members
  - 4 students in a group, 25 points/student = 100-points
- Students use slider bars to distribute that pool of points to all group members (including themselves)
- There is no option to provide feedback, it is only a score
- The average score for each student can be exported to an associated CourseLink Grade item

# DISTRIBUTION OF GROUP EFFORT (DGE) VISUALIZATION

## Group Members



## PEAR Effort Slider



100 Points  
(Points per Member = 25)

# PEAR SUPPORT

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# PEAR SUPPORT CONTACTS

Getting started with your first project or looking to overhaul an existing assignment to include online peer review?

- Contact the ITS team for support:
  - Consultation Form: <https://bit.ly/UG-ITS-Consult>
  - Email: [insttech@uoguelph.ca](mailto:insttech@uoguelph.ca)

Have a how-to question about a project you're working on? Need timely assistance? Do your students need support?

- Contact CourseLink Support
  - Email: [courselink@uoguelph.ca](mailto:courselink@uoguelph.ca)
  - Phone: ex. 56939 or 1-866-275-1478

# PEAR SUPPORT RESOURCES

While there isn't a fulsome support site for PEAR, There is an Instructor FAQ page:

[https://courselink.uoguelph.ca/shared/Support/PEAR/index\\_pear.html](https://courselink.uoguelph.ca/shared/Support/PEAR/index_pear.html)

There is also a downloadable PEAR Project Checklist to help verify that you have everything set up:

<https://courselink.uoguelph.ca/shared/Support/PEAR/PEARChecklist.docx>