DESIGNING EFFECTIVE GROUP WORK
The results of a meta-analysis study of 168 studies comparing cooperative learning to competitive learning and individualistic learning in college students indicated that cooperative learning produced greater academic achievement than both competitive learning and individualistic learning (Johnson et al., 2006). The meta-analysis also revealed positive effects of cooperative learning on other metrics, including self-esteem and positive attitudes about learning.

Cooperative learning, also called small-group learning, happens when students work in small groups to achieve a common goal. It helps students not only learn academic material but also develop social skills.

Below are some suggestions to help implement group work successfully in your classroom.

**Present the expectations and goals.** Provide students with a detailed plan about what task they are expected to complete in groups and why. You can clearly define the purpose of the group task as well. In class, take the time to provide detailed and clear instructions to all groups, and explain how you will interact with and monitor their progress. For example, indicate whether you will circulate among the groups, sit in on group meetings, help groups deal with difficult issues, or provide resources.
Describe the task(s) in detail. You can describe steps in the process with deadlines, and/or resources needed for group work. You can give students clear topics, questions, deliverables, or goals for group work. To avoid common problems in group work, such as dominance by a single student or conflict avoidance, it can be useful to assign roles to group members (e.g., manager, summarizer, recorder, reporter, and etc.) and to rotate them on a regular basis (Heller & Hollabaugh, 1992).

To make sure that the work is divided evenly among group members, you may prepare a job list to help students assign group members to particular tasks;

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<th>What needs doing?</th>
<th>How long will it take?</th>
<th>Who will do it?</th>
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Consider group size. Groups from 2-6 are generally recommended, with groups that consist of three members exhibiting the best performance in some problem-solving tasks (Johnson et al., 2006; Heller & Hollabaugh, 1992).

Decide how you will group students to form teams. According to Michaelson et al., (2004) instructors can consider randomizing or purposely choosing teams with a mix of abilities and backgrounds, rather than allowing students to choose their own groups.

You may create and distribute a pre-course survey at the beginning of the semester to determine student availability and skill sets.
Also, you can prepare a one-question survey, or include the sample question below in your pre-course survey.

Which of the following best describes your experience of group work?

A. I like group work because my group helps me learn.
B. I question the value of group work because in the past I’ve ended up doing all the work.
C. I have little or no experience working in groups.
D. I have different experience of group work than the choices above. (Please explain.)

Potosky & Duck (2007) suggest “the rainbow approach” for team formation. In this approach, students brainstorm all of the skills that are required to successfully complete the project. Then the instructor assigns coloured cards to the main skills identified, and students select all of the cards (skills) that they consider to be their strengths. Students then use the cards to support them in assembling a team that has a diversity of skills, aiming to assemble the full rainbow of cards among their members.

**Proactively check in with groups.** It’s important to pay attention to both the process and the accomplished task. As you visit groups during class or consult with groups during office hours, take note of who speaks and who does not; consider asking process questions such as who is generating ideas and how they know everyone is on board with these ideas.

**Clarify the criteria.** You should communicate specific details about how student work generated in groups will be assessed through rubrics or a grading scheme. According to James et al., (2002), assessment criteria for group work will depend on the particular learning outcomes you set for your course, but they might include:
✓ regular attendance at group meetings
✓ equity of contribution
✓ evidence of collaborative behaviour
✓ appropriate time and task management
✓ application of creative problem solving
✓ an appropriate level of engagement with the task.

You may find examples rubrics created for group work below. For further information, please refer to Developing Rubrics.

Decide if students will be graded individually, as a team or both. You can consider using both a team grade and an individual grade, allowing the student’s total grade to be a combination of both scores. You might also decide that a portion of the grade will be determined by a self-evaluation or anonymous peer evaluation.

Foster cross-group peer review. Students will appreciate hearing what other groups are doing and can get ideas for their own projects. Students may share their milestones or group work with another group and have them record questions and feedback in a collaborative document.
Help students establish ground rules or group contracts. Group contracts allow students to take an active role in setting the tone for group interaction. They can help "motivate ownership of learning" as well (Hesterman, 2016, p. 5). At the beginning of the project, get students to establish their own ground rules and ask students to identify how they want to work together, what their expectations are from each other, and what collaborative tools the group wants to use. Allow them to adjust norms and set goals for the next phase of group work.

Below are some samples of group contracts you can distribute to students at the beginning of group work.

Sample Group Contract
Texas University.

Sample Group Contract
University of Waterloo.

Sample Contract
University of Washington.

Also, you can provide students with a set of written guidelines or ground rules. If you would like to make ground rules more official, ask students to sign a written version of their group's ground rules in the form of a group contract.
References


New South Wales University. Preparing for Group Work.
https://www.teaching.unsw.edu.au/group-work-make-your-expectations-clear

https://uwaterloo.ca/centre-for-teaching-excellence/teaching-resources/teaching-tips/developing-assignments/group-work/making-group-contracts

Teamwork and Group Work. Centre for Teaching and Learning. Western University.
https://teaching.uwo.ca/teaching/engaging/setting-up-teamwork.html

https://gsi.berkeley.edu/gsi-guide-contents/discussion-intro/group-guidelines/

Further Reading and Resources

- Group Work. The Derek Bok Center for Teaching and Learning. Harvard University.