

Reinforcement Learning – Group Project

Individual Contributions and the Group Contribution Form

You will be working as part of a group to complete this project. As such, you should ensure that you organise your time and resources effectively. Finding time to plan, set expectations, discuss your work, and agree on each group member's responsibilities is **essential**.

You are expected to work together so that your individual contributions make sense when integrated into your final project submission. However, we recognise that different group members may put different amounts of effort into this project and have different aspirations regarding their final grade. As such, each group member's final mark for the project will be scaled based on contribution levels that you agree upon as a group.

As a group, you must agree on each member's relative contribution to the project and record them on a Group Contribution Form (GCF).

The GCF must contain the **names of all group members, their signatures, and their agreed level of contribution** to the project. All activities involved in completing the project count towards an individual's contribution – this includes obvious tasks (e.g. writing the report or implementing algorithms) as well as less-obvious project-management tasks (e.g. record-keeping and taking on leadership responsibilities within the group).

Guideline **contribution levels** are:

- 10 Excellent (high level of contribution, taking on a leadership role, performing coordination and/or record-keeping work)
- 8 Full (very good level of contribution)**
- 6 Partial (good level of contribution)
- 4 Sporadic (contributing about half of the full expected effort)
- 2 Negligible (contributing less than a third of the full expected effort)
- 0 Non-participation (not contributing to the project in any meaningful way)

If your agreed contributions contain large discrepancies (i.e. differing by more than four points from the expected level of contribution), you should include a brief statement to explain them. **We expect all members to contribute fully**, although this might not necessarily mean equally.

If a group member is assigned a contribution level of zero, they will receive a mark of zero. Non-participation means persistent, unexcused absence from meetings and discussions, as well as not contributing whatsoever to the project deliverables.

Remember, **communication is key** to avoiding issues when working as part of a group. If you decide to approach your unit convenor regarding one of your fellow group members not participating, please ensure that the relevant group member has been informed in good time of the dates and times of all meetings, and that they are aware of/have agreed to the work assigned to them.

In exceptional cases where no agreement can be reached on the contributions of individual members, your group can hand in more than one GCF. This will reflect badly on your group-work process, and group members will be required to produce evidence in a hearing with the unit convenor to support their case. In such an eventuality, the Director of Studies may also be involved. **We sincerely hope that this will not end up being necessary – this should only be considered as a last resort.**

Scaling Individual Marks

The **median** level of contribution level is calculated for each group. We use this as the basis for scaling each group member's mark for the project. Each group member's mark is scaled as follows, based on their distance to the median contribution level:

- +4 = + 20% of mark (but capped at +10 marks and cannot exceed 100)
- +3 = + 15% of mark (but capped at +10 marks and cannot exceed 100)
- +2 = +10% of mark (but capped at +10 marks and cannot exceed 100)
- +1 = + 5% of mark (but capped at +10 marks and cannot exceed 100)
- 0 = no adjustment (member at the median contribution level)
- 1 = - 5% of mark
- 2 = -10% of mark
- 3 = -15% of mark
- 4 = -20% of mark
- 5 = -25% of mark
- 6 = -40% of mark

We use the median as the central reference point in the adjustment formula, instead of the mean, to account for rare cases where groups have absent members or group members with very low levels of contribution.

Example GCF

Below, we have provided an example of what your GCF should look like. Please feel free to use this as a template for your own GCF.

Group Members	Contribution Level	Signatures
Sutton	6	<i>Sutton's Signature</i>
Silver	6	<i>Silver's Signature</i>
Barto	8	<i>Barto's Signature</i>
Bellman	4	<i>Bellman's Signature</i>

Bellman did not contribute anything to the group until the final two weeks, causing significant disruption to the organisation and delegation of project work (e.g. unanswered group forum posts, stalled work). He did work conscientiously in the final two weeks before the deadline, especially on the presentation video and report, but other members had to do extra work to help explain what we had already done and what he needed to do.

Barto coordinated the work and group meetings, sending reminders and keeping all members informed of what was needed.

The median contribution in this example is 6. If their group project was marked at 60, each group member's grade would be scaled as follows:

- Sutton and Silver would get 60,
- Barto would get 66 ($60+10\%$), and
- Bellman would get 54 ($60-10\%=54$).

This group contribution form is based on one previously used by Dr. Fabio Nemetz. It was developed in association with student representatives and the SSLC.