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| **Risk Assessment** | | | | | |
| **Risk Assessment for the activity of** | **Machine Learning with Chomp!** | | | **Date** | **10/03/18** |
| **Unit/Faculty/Directorate** | **NGCM / FEE** | **Assessor** |  | | |
| **Line Manager/Supervisor** | ***Ian Hawke*** | **Signed off** |  | | |

| ***PART A*** | | | | | | | | | | | | |
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| **(1) Risk identification** | | | | **(2) Risk assessment** | | | | | **(3) Risk management** | | | |
| **Hazard** | **Potential Consequences** | **Who might be harmed**  **(user; those nearby; those in the vicinity; members of the public)** | **Inherent** | | | |  | **Residual** | | | | **Further controls (use the risk hierarchy)** |
| **Likelihood** | | **Impact** | **Score** | **Control measures (use the risk hierarchy)** | **Likelihood** | | **Impact** | **Score** |
| Incorrect lifting  technique (during event setup) | Musculoskeletal injury,  particularly to the back | Students | **2** | | **3** | **6** | Limit lifting of tables / heavy equipment, only take laptops & lighter loads, split items into lighter loads, use good posture when lifting, some of the students have done manual  handling training | **1** | | **3** | **3** | Risk green, no further actions |
| Tripping hazard | Falls | Students, staff, public | **2** | | **3** | **6** | Locate activity near power outlets and provide extension cables to reduce number of cables, tape down cables to floor & tables, manage traffic in the room effectively, discourage running when children are present | **1** | | **3** | **3** | Risk green, no further actions |
| Choking and ingestion (of plastic beads) | Obstruction to breathing, swallowing small plastic parts. | Small children | **2** | | **4** | **8** | - Beads to be moved around the activity by demonstrators only.  - Unused beads kept in clipped-shut boxes out of sight of public.  - Floor monitored for any dropped beads.  - Contact of nearest on-call first aider known by all demonstrators.  - Non-toxic, food-safe 5mm diameter plastic beads used. | **1** | | **3** | **3** | Risk green, no further actions |
| Electrical  equipment | Electrocution, outbreak  of fire, burns | Students, public | **1** | | **3** | **3** | Only use safety (PAT) tested equipment, no use of damaged equipment including leads and plugs, do not cover vents | **1** | | **3** | **3** | Risk green, no further actions |
| Ingestion of allergens in Chomp Chocolate bars | Allergic Reaction | Public | **1** | | **3** | **3** | Chomp contains MILK. Advise chocolate not friendly for those who are lactose intolerant and have a clearly displayed sign. Chomp packaging suggests chocolate is free from nuts. | **1** | | **3** | **3** | Risk green, no further actions |

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| ***PART B – Action Plan*** | | | | | | | |
| **Risk Assessment Action Plan** | | | | | | | |
| **Part no.** | **Action to be taken, incl. Cost** | **By whom** | | **Target date** | **Review date** | **Outcome at review date** | |
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| Responsible manager’s signature: | | | | | Responsible manager’s signature: | | |
| Print name: | | | Date: | | Print name: | | Date |

**Assessment Guidance**

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| 1. Eliminate | Remove the hazard wherever possible which negates the need for further controls | If this is not possible then explain why |  |
| 1. Substitute | Replace the hazard with one less hazardous | If not possible then explain why |
| 1. Physical controls | Examples: enclosure, fume cupboard, glove box | Likely to still require admin controls as well |
| 1. Admin controls | Examples: training, supervision, signage |  |
| 1. Personal protection | Examples: respirators, safety specs, gloves | Last resort as it only protects the individual |

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| **LIKELIHOOD** | 5 | | 5 | | 10 | | 15 | | 20 | | 25 | |
| 4 | | 4 | | 8 | | 12 | | 16 | | 20 |
| 3 | | 3 | | 6 | | 9 | | 12 | | 15 |
| 2 | | 2 | | 4 | | 6 | | 8 | | 10 |
| 1 | | 1 | | 2 | | 3 | | 4 | | 5 |
|  | | | | 1 | | 2 | | 3 | | 4 | | 5 |
| **IMPACT** | | | | | | | | |

Risk process

1. Identify the impact and likelihood using the tables above.
2. Identify the risk rating by multiplying the Impact by the likelihood using the coloured matrix.
3. If the risk is amber or red – identify control measures to reduce the risk to as low as is reasonably practicable.
4. If the residual risk is green, additional controls are not necessary.
5. If the residual risk is amber the activity can continue but you must identify and implement further controls to reduce the risk to as low as reasonably practicable.
6. If the residual risk is red do not continue with the activity until additional controls have been implemented and the risk is reduced.
7. Control measures should follow the risk hierarchy, where appropriate as per the pyramid above.
8. The cost of implementing control measures can be taken into account but should be proportional to the risk i.e. a control to reduce low risk may not need to be carried out if the cost is high but a control to manage high risk means that even at high cost the control would be necessary.

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| Impact | | Health & Safety |
| 1 | Trivial - insignificant | Very minor injuries e.g. slight bruising |
| 2 | Minor | Injuries or illness e.g. small cut or abrasion which require basic first aid treatment even in self-administered. |
| 3 | Moderate | Injuries or illness e.g. strain or sprain requiring first aid or medical support. |
| 4 | Major | Injuries or illness e.g. broken bone requiring medical support >24 hours and time off work >4 weeks. |
| 5 | Severe – extremely significant | Fatality or multiple serious injuries or illness requiring hospital admission or significant time off work. |

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| Likelihood | |
| 1 | Rare e.g. 1 in 100,000 chance or higher |
| 2 | Unlikely e.g. 1 in 10,000 chance or higher |
| 3 | Possible e.g. 1 in 1,000 chance or higher |
| 4 | Likely e.g. 1 in 100 chance or higher |
| 5 | Very Likely e.g. 1 in 10 chance or higher |