College Strategy 2015-2020: *We will achieve the highest standards of safety*

Introduction

Making our students, staff, visitors and contractors as *safe as reasonably practicable* is an essential part of managing our business risk. Over the last decade great effort has been put into establishing and developing safety management systems and the safety culture of the College. By 'safety culture' we mean our shared values, assumptions and beliefs specific to workplace safety; in other words the relative importance of safety within the College.

To date the safety culture has been driven by a focus on legislation and compliance with a focus on policies and corresponding codes of practice. Highly regulated areas, such as biosafety and radiation, are well managed; with excellent infrastructures and monitoring systems in place, and is sector leading in many areas. There is also a good framework for consulting widely before agreeing and implementing policies and new initiatives. However, safety is not yet embedded in the hearts and minds of all academics, staff and students.

Accidents occur as a result of sequential failures in control at multiple levels, and eventually lead to consequences far greater than the individual failings would have indicated. Individuals need to feel that they can raise safety concerns and are empowered to take corrective action. The College needs to cement such positive behaviour across all areas, with demonstrated commitment at individual, institutional, Faculty and departmental level. This document sets out the key initiatives which recognise that the behaviour and responsibilities of leaders, staff and students are central in delivering the desired organisational change.

The safety strategy will utilise existing structures, and improvements will be targeted at five key areas:

1) Organisational Influences (leadership)

Enhancing the College's attitudes to safety through the culture and behaviours expressed by all College members and led by senior College influencers; with visible and tangible commitment from top management. Behaviour is about choice, and leadership influences this choice.

Individuals with safety responsibilities to be given sufficient training, and access to competent resource to ensure safety is given the right priority. Effective communication and consultation on Health & Safety occurs at all levels; with recognition that everyone has a role to play.

2) Safety knowledge & awareness (documentation & training)

Ensuring everyone has access to 'up-to-date' guidance and advice through practical tools & techniques; presented in simple to use, relevant and accurate formats which are reviewed and updated regularly. Provision made for high quality training so that individuals at all levels understand the risk profile of their activities and establish effective control measures; both preventive and mitigation barriers.

Safety personnel are technically well trained and their competencies could be further enhanced by soft skills training, as applicable.

Shared sites pose a high risk to the College. Given the collaborative and sharing nature of research, there is not always enough consideration given to the contracts, SLAs and joint working practices; e.g. who has responsibility for what areas and for which staff can often be unclear. Greater attention to be given to safety provision and associated responsibilities when establishing partnership and other agreements.

In addition the emphasis on cross-disciplinary research and work around 'hackspaces' will increase over the coming years, which will require staff and students to be able to adapt to different work environments and hazards.

3) Supervision & Monitoring (risk assessments, inspections, audits and KPIs)

Ensuring risks are assessed honestly and that proportionate controls are implemented. Utilise the pivotal role of supervisors and senior staff to raise awareness of immediate and consequential risks. Managers and supervisors at all levels, via simple evidence, tools & techniques, are actively monitoring compliance and offering safety support and guidance.

Individuals recognise intrinsic hazards in all aspects of their work and not just the 'obvious ones'. Individuals remain conscious of risk and do not let familiarity or conflicting priorities affect judgement. Establish an environment where the 'hierarchy of control' approach is in use at all levels.

4) Accident/incident investigation (root causes & shared learning)

Learning from mistakes and accepting that near misses and incidents will happen; understanding that such events are warning signs which should not be ignored. Establishing an environment where all individuals are concerned about any incident, and will take action to investigate, act on the findings and prevent it happening again. A communications infrastructure is in place to enable effective learning and sharing across the College.

5) Unsafe behaviours (safety culture)

Establish a culture where individuals do not behave in an unsafe manner and that unsafe behaviour is not tolerated. Developing an approach where safety knowledge and guidance is shared without hierarchy and consequences.

How will this be achieved?

To achieve these strategic aims, a two phased approach is planned; the first phase will work on developing the safety infrastructure and the second will address key hurdles identified which are stopping the development of a stronger safety culture. The approach will include understanding attitudes held by the different demographic groups and their motivations. This will help to identify who we will need to work with and influence in order to make the programme a success.

Near the end of phase 1 the next phase plans will be reviewed in light of experience gained, and modifications will be made to the subsequent plans if necessary. Times scales given are indicative as some elements may take longer to embed than others; especially as there are some inter-dependencies.

Phase 1 (year 1-3) will focus on:

- Organisational Influences (leadership)
- Safety knowledge & awareness (documentation & training)
- Supervision & Monitoring (risk assessments, audits and KPIs)
- Accident/incident investigation (root causes & shared learning)

Phase 2 will start after substantial progress has been made in Phase 1 and will focus on underlying safety culture and associated behaviour.

Implementation

PHASE 1

1) Organisational Influences (leadership)

i) Safety Leadership

It is the leadership that sets the tone of an organisation. To improve safety leadership at the College, the following actions are planned:

- Implement the principles of the University Safety and Health Association Guidance: *Leadership and management of health and safety in higher education institutions.*
- Provision of senior management safety training with on-going training for role changes. Utilise external training resources (e.g. Eversheds, British Safety Council etc.) to explain management accountabilities and the tools required to fulfil these responsibilities; this will include status of the USHA guidance within the legal system and understanding of what good health & safety means at the College.
- Pilot ‘‘Theatre Forum’ approach to behavioural safety training
- Ensure Academic Safety Champions role is aligned to the safety strategy
- Establish safety risk registers (utilising existing risk register tool) with each level of management understanding key risks in their areas; provision of documented assurance that critical controls are being monitored and managed. Introduction of metrics & local safety boards
- Review financial provision for safety: local verses central budgets
- Increase communications utilising existing platforms e.g. bulletins, campaigns, monthly stats on web page, staff briefings, notice boards and posters, Newsletter etc.
- Ensure sufficient resource is available to address the safety challenges arising from the growth & changing nature of College business. In addition to appointed safety personnel, the role of the person responsible for a laboratory/area to be recognised as a critical part of the wider departmental safe system, without detracting from the primary responsibilities of the HODs & PIs etc. This would include provision of appropriate training & list of responsibilities.
- Incentivise & recognise individual safety achievements through department & faculty recognition as well as central awards (Provost Award for Excellence in Safety).

2) Safety knowledge & awareness (policies, procedures & training)

i) Policies & Procedures

Policies provide managerial guidance on legal, ethical or organisational requirements while the procedures (often termed Codes of Practice (CoP)) are operational reflections of these policies. The following actions are planned:

- Support identification and implementation of the potential college-wide business management system (*i-Business Process Enterprise/Model* projects).
- Single point of entry for access to all policies, including Departmental or Faculty specific policies and Codes of Practice developed with and approved via the Central Safety Department (see also single point of contact below).
- Review and clarify safety roles & responsibilities. Standardise safety terminology with a drive towards a uniform safety management system across the College identifying the minimum standard requirements.
- Single point of contact within the safety team, with responsibility for developing, and maintaining safety policies & procedures and managing the overall process; including:
    - Initiating requests for development
    - Gathering information and planning development. Identifying which position role should be involved at each stage.
    - Writing general policies and supporting guidance; reviewing drafts and consulting end-users
    - Identifying and allocating individuals for the development of specialist/topic specific policies and supporting guidance
    - Implementation (including publishing and distribution) utilising all forms of communications technology available. Provision of checklists identifying what needs to be done and simple presentations for cascading implementation.
    - Monitoring compliance
    - Stream-lining the current consultation & approval process to make it more efficient and effective.
    - Regular review of policies & procedures (e.g. every 2 years)

- Review current safety documentation. Remove any information that is not useful or is out-of-date.
- Adopt and apply a documented methodology, with safety management processes looking and feeling the same across different safety disciplines. Applying techniques of information design and giving consideration to cognitive science and human factors. Use a mix of flowcharts, checklists and story board approach.
- Develop single source and not multi-source documents. Designed to be comprehensive, integrated and unified for both on-line usage and printing. The tools & techniques to be designed for use in training and as an on-going reference.

ii) Training & Competence

The College will enable individuals appointed to a job, task or activity to understand their role, be adequately trained in safety and have their health and safety competencies checked as necessary. This would include provision for both UG and PG students.

The following actions are planned:

- Optimising use of 'Imperial Essentials' initiative for safety.
- Different delivery methods will be explored including use of short targeted videos, theatre forum, e-learning, team-based learning and interactive workshops.
- Development of a safety training strategy through the Safety Training Advisory Committee, which will include:
    - Reviewing current training provision to identify need for additional courses not currently offered.
    - Requirements and design of the Competency Development Framework – incorporating competence maintenance & refresher training
    - Identification of different compliance levels and the corresponding training provision
    - Common system for recording safety training
    - Development of safety advisors as strong influencers and negotiators through soft skills training programme
    - Potential demand and resourcing implications

- The Provost's Board agreed in October 2015 that safety training, not just induction but refresher training, should become mandatory. Time frames for refresher training will be risk based and task specific. A programme of mandatory training will be developed as an e-learning package which would be made available on different technologies e.g. mobile phones
- A role based training matrix will be developed in conjunction with HR, Post-Doctoral Development Centre, Registry, Graduate School and LDC, as applicable. It will remain the responsibility of line managers & supervisors to check that the required training is undertaken. A mechanism for monitoring compliance will be established and a *Mandatory Training Compliance Report* would be produced. Mechanisms for assessing the quality and impact of the training will need to be determined.
- Provision for line managers to assess the competence of their direct reports as part of the PRDP process.

3) Supervision & Monitoring (risk assessments, inspections, audits and KPIs)

i) Risk assessments

Suitable and sufficient risk assessments will enable the College to identify measures it needs to reduce foreseeable significant risks and comply with health & safety law. The following actions are planned:

- Development of a basic model for risk assessments and over-arching policy document; make it an easy process to undertake risk assessment and get approval. Where applicable introduce standard forms and defined approval processes. Review Risk Assessment Foundation Training (RAFT) e-learning programme

- Ensure risk assessment is seen as an analytical process and not just a paper or form filling exercise.
- Ensure workplace and young person's risk assessments are applied consistently across the College
- Safety Department will prioritise policy development and will publish the programme for each year.
- Process Safety Officer to undertake risk assessment of gas supply systems across the College
- Establish risk assessment workshops to aid the thought processes required for the development of a strong risk assessment. Pilot a new team - based workshop within Faculty of Natural Sciences
- Launch 'Red List' policy which requires peer review of risk assessments for high risk activities
- Raise awareness of and improve student facing risk assessments; focus on risk assessments for practical sessions and corresponding training for Graduate Training Assistants
- Clarify risk assessment roles and competencies for operators and assessors.

ii) <u>Audits & Inspections</u>

A new programme for Audits & Inspections has been launched; planned audits will be shorter, more frequent, and focussed on areas of highest concern or where incidents have occurred.

The intention is that each department (academic and support services which are not solely office-based), is visited every two years. Highly regulated activities will continue to be audited annually. In the first year of the new programme there will also be an additional six-monthly follow-up, regardless of the departmental risk profile. In addition, unannounced inspections will also take place throughout the year and will be independent of the planned schedule. More detailed and thorough audits will be undertaken in any areas where the initial audits/inspections identify serious safety failings.

Where possible, the different types of audits (general, biosafety, radiation etc.) will be co-ordinated to take place at the same time, thereby minimising disruptions to individual departments & teams. Consideration will also be given to provision of a self-audit toolkit.

The process of full audits at change of HoD will remain unchanged.

iii) <u>Safety Metrics</u>

Four safety related Key Performance Indicators (KPIs) are proposed:

- Visible leadership (leading)
- Fire risks from processes and experimentation (leading)
- Computer health self-assessment (leading)
- Reported Accident to near-miss incident ratios (lagging)

Details of each are given in Appendix 1.These have been selected on the basis that they:

- are likely to have an impact on safety performance
- will be relatively easy to monitor
- will not greatly increase workloads
- will address elements of fire, occupational health and safety

The approach is to gradually implement and increase the targets once the College gets acclimatised to the use of KPIs.

iv) Accident & Incident investigations

Key actions will target accident & incident reporting and corresponding investigations, including:

- Promoting significance of reporting
- Upgrading SALUS system to track actions
- Focusing on Corrective and Preventive Actions (CAPA) and Root causes
- Provision of specific investigations training
- Establishing a mechanism of learning from errors and omissions with cross-sharing of advice and best practice
- Focus on preventing accidents instead of reacting to an incident after it has occurred; individuals learn how to see, and act promptly on any unsafe or hazardous conditions.
- Removing barriers for communicating safety issues or concerns.

NOTE: Specific milestones for phase 1 are given in Appendix 2

PHASE 2

Key actions will include;

- Using the HSL Safety Climate Tool (SCT) or equivalent to identify the underlying safety culture of the College and key areas to target. The approach will utilise evidence (SCT) based decisions to form the basis of targeted action plans that focus on areas that genuinely need attention and those that will have most impact on improving safety performance.
- Reviewing the actions taken and evaluating the impact of changes made. Re-running the SCT (after 2-3 years) to see if any visible improvements are evident.
- Establish a process for sustainability to ensure continuous evolution of the safety culture and practices.

Detailed actions for Phase 2 will be developed following the successful implementation of Phase 1.

Resource Implications & Assumptions

To successfully deliver this strategy the following are needed:

- Successful delivery of the proposed *i-Business Process Enterprise/Model* which is able to support safety requirements. Resource will be required for system development, management and maintenance and must be able to interact with other College ICT systems.
- Recruitment of a new Policy & Compliance Officer; an individual within the safety team who is responsible for developing, implementing and maintaining safety policies & Codes of Practice. Ideally, the suitable individual would have talents in communication, document management and safety systems such that simple evidence, tools and techniques are developed
- Coordination and consultation with Faculty and Support Services: Better communication, consultation and co-ordination of effort between the Safety Department and Faculty &

Support Services safety teams. Working together to minimise duplication and make best use of all available safety resource.

- Assistance from College Communications and Public Affairs Department: significant input required as Phase 1 rolls out.
- Commitment at departmental level: sufficient competent resource for training, development & review of risk assessments, determining safe systems of work, and in addressing any issues identified through audits or incidents.
- As strategy unfolds additional resource may be required.

Next Steps

- Seek approval of Health, Safety & Environment Committee in February 2016
- Secure senior management and Faculty commitment by May 2016
- Seek approval at Provost Board in June 2016

Appendix 1: KPIs Selected

1) Visible leadership (leading indicator)

It is well known that leadership and line management have a profound effect on the safety culture of an organisation & individual teams. The safety culture is what drives individuals from following safety rule because 'they have to' to one where 'they want to'. It is only when the latter happens can you see a marked improvement in safety performance.

Requirement:

Faculty Deans, HoDs and Support Service Directors to accompany at least one safety inspection per year in their areas of responsibility.

HoDs and Directors of Support Services to Chair their departmental Health & Safety Committees at least once per year

Implementation & Target:

- Year 1 – to raise awareness of requirements and target 25% compliance
- Year 2 – target 50% compliance
- Year 3 – target 100% compliance

Monitoring:

Annual returns completed by Faculty Safety Officers/Faculty Safety Advisors and submitted to the Safety Department

2) Consideration of fire risks from processes & experimentation (leading indicator)

Potential for fire remains one of the College's key safety risks. While building fire safety and risk assessments are being managed by the Chief Fire Officer, the risks from experimental processes are less well understood and managed.

Requirement:

To include fire safety in the process & workplace risk assessments

Implementation & Target:

- Year 1 – to raise awareness of requirements and modify existing risk assessment forms to include 'Fire risk'. Target 25% compliance of those checked
- Year 2 – target 50% compliance of those checked
- Year 3 – target 100% compliance of those checked

Monitoring

Checks will be made at both central and local audits & inspections. Annual return form will be completed by auditors and submitted to the Safety Department

3) Computer health self-assessments (leading indicator)

Computers are in use right across the College. Currently the majority of staff and students are not complying with the requirement to undertake a Display Screen Equipment (DSE) risk assessment.

Requirement:

All staff and students to undertake computer health self-assessments for their work and study areas on College premises.

Implementation & Target:

- Year 1 – Establish provision of local DSE assessors. Departments to nominate suitable individuals & 50% will receive training (targeting high risk areas first)
- Year 2 – target 100% of departments to have trained DSE assessors in place
- Year 2/3 – target 50% of staff to have undertaken computer health self-assessments
- Year 4 – target 100% of staff to have undertaken computer health self-assessments

Monitoring

Local DSE assessors submit annual return to Occupational Health

4) Accident : Near miss incident reporting (lagging indicator)

To encourage reporting and investigation of incidents, it is preferable to monitor this ratio rather than looking at the absolute number of accidents & incidents.

Requirement

Year on year improvement in the number of near misses reported. As a short-term target the ratio of Accidents to Near miss incidents reported should be at least 1: 2 for all Faculties and Support Services

Implementation & Target:

- Year 1 – to raise awareness of requirements and Target 40% compliance
- Year 2 – target 80% compliance of those checked
- Year 3 – target 100% compliance of those checked

Appendix 2: Specific Milestones for Phase 1

Year 1

Leadership	**Policies & CoPs**	**Training**	**Risk Assessments (RA)**	**Metric**	**Investigations**
Dissemination of USHA document with corresponding College Guidance	Support identification and development of new Business Management System	Support development of 'Imperial Essentials' mandatory safety training module & delivery platform	Develop basic model for risk assessments and clarify roles & competencies for operators & assessors	Launch concept of Key Performance Indicators (KPIs) and four targeted KPIs	Promote significance of reporting
Identify & organise leadership training	Appoint single point of contact	Development of Training Strategy via STAC	Launch 'Red List' policy and update CoPs		Upgrade SALUS to include CAPA & 'Root Cause' entry boxes
Pilot 'Forum Theatre' training for behavioural safety at HoDs lunch & Chemical Engineering Department meeting	Review and clarify safety roles & responsibilities	Development of e-learning modules for Radiation and Fume Cupboard safety	Launch Personal Protective Equipment (PPE) Policy & CoP		Enhance investigations skills within Safety Department.
Integrate safety training into existing management training programmes Develop guidance for health & safety considerations for partnerships & contracts	Review performance of new audit process & approach Introduce OE concepts & tools for process improvement Commence audits of existing MoUs with NHS Trusts	Launch UG & PG student focussed safety videos	Risk assess gas supply systems across the College Pilot new risk assessment workshop in Faculty of Natural Science Identify RA related KPIs		Development of new College-wide investigations training programme

Year 2 (to be reviewed as year 1 initiatives are rolled out)

Leadership	Policies & CoPs	Training	Risk Assessments (RA)	Metric	Investigations
Cascade leadership training through management chain	Review of safety documentation and transfer to new system	Implement training strategy & review safety training provision	College wide launch of RA workshop training	Review KPI performance	Upgrade SALUS to include action tracking
Review financial provision for safety	Development of single source documents	Development of role-based training matrix	Re-launch the concept of 'hierarchy of control'	Launch risk assessment related KPIs	Establish mechanism for sharing best practice & lessons learnt
Promote widespread use of 'laboratory technicians' or equivalent	Stream-line implementation process	Provision of soft skills training for safety advisors	Re-work & re-launch RAFT e-learning module		
Review Leadership participation in audits and inspection	Digitization of forms and risk assessments	Health & Safety training for Graduate Training Assistants	Further development of e-learning modules		Introduce regular safety briefs - fact sheets, monthly updates etc.
		Monitoring compliance for mandatory training	Review compliance with 'Red List' policy		Bench-marking performance
			Review & improve student facing risk assessments		

Year 3 (to be reviewed as year 2 initiatives are rolled out)

Leadership	Policies & CoPs	Training	Risk Assessments	KPIs	Investigations
Development of 'Safety Risk Registers' for assurance. Will feed into risk register as applicable Introduce local incentive schemes Undertake Audit of College 'Safety Leadership'	Review of safety documentation and transfer to new system Continue development of single source documents Consider HASMAP process for Audits Develop single point of entry for all policies on web	Further deployment of forum theatre & inter-active learning On-going monitoring of compliance and report Introduction of Safety App	Integrate risk assessments into Standard Operating Procedures process Risk assessment focussed audit	Review effectiveness and impact of KPIs Further development of KPIs	Removing barriers for communicating safety issues & concerns Safety performance data available on website safety page