EMERGENCY/DISASTER MANAGEMENT
AT UNIVERSITAS INDONESIA

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Introduction

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- 2014 Professorship in Safety
- 2006 PhD Safety Science (AusAid funded Scholarship) School of Risk & Safety Science, University of New South Wales (UNSW), Sydney 2052, Australia.
- 1997 MSc Chemistry, FMIPA UI
- 1993 Bachelor of Science – Chemistry, FMIPA UI
Outline

• Universitas Indonesia Profile
• OSHE UI Profile
• Background
• Emergency/Disaster Management at UI
• Evaluation
• Conclusion
Universitas Indonesia Profile
Universitas Indonesia (UI) Profile

2 campuses

Founded in 1849 – UI Salemba Campus

UI Campus Depok - 1987
6 wonderful lakes inside campus – KAMPUS
(Kenanga, Agathis, Mahoni, Puspa, Ulin & Salam)

Safe, Healthy & Green Campus

Number of Students: ~ 50,000
Total Area: 320 hectares
UI Campus

Health Sciences Cluster
- Faculty of Public Health
- Faculty of Medicine
- Faculty of Dentistry
- Faculty of Nursing
- Faculty of Pharmacy

Social Sciences & Humanities Cluster
- Faculty of Economics & Business
- Faculty of Humanities
- Faculty of Law
- Faculty of Psychology
- Faculty of Social & Political Science

Science & Technology Cluster
- Faculty of Engineering
- Faculty of Mathematics & Natural Sciences
- Faculty of Computer Science

Staff: ~3348
Lecturers: ~4237

Students: ~50,000

- Laboratories ~ 214 Labs
- Research Centre ~ 50 centres
- Buildings ~ 200 buildings

Sumber data: Presentasi Membangun UI menuju Unggulan Asia oleh Kepala BP3U (2015)
Activities & Hazards associated at UI

- Teaching, Academics, Research
- Students Practicum
- Workshop
- Human, Microorganism, Plant & Animal research
- Nanoparticle Research
- Fieldwork research
- Teaching Hospital
- Constructions
- Combustion research

- Laboratories
- Chemicals
- Bio-hazards
- Mechanical Hazards
- Psychological Hazards
- Ergonomic Hazards

Transportation (train, car, motorcycle, bike, walk, bus)
People at Risk in UI

- Students, Lecturers, Faculty Members
- Staff (Administrative, Labs, supporting staff)
- Visitors, Honorable Guests
- Contractors
Visission & Mission
OSHE UI

VISI
• To create a Safe, Healthy & Green Campus

MISI
• To protect human lifes, injury & incident prevention, environmental protection and building an OSHE Culture
OSHE UI Organizational Structure

**OHS Management**
- Road Safety
- OSHE Event
- Canteen OSHE & Occupational Health
- Building OSHE
- CSHEMS (Contractor Safety, Health & Environmental Management System)

**Environmental Management**
- Laboratory OSHEMS
- UI City Forest
- Tree Risk Management
- Water, Animal & Forest Conservation

**Emergency Management**
- Fire Safety
- Medical Emergency
- Water Rescue
- High Angle Vertical Rescue
- Laboratory Chemical Emergency

**Administration, Finance, Public Relations, Procurement & Human Resources**

UI OSHE staff: 40 staff
OSHE Faculties & Labs Officers: ~ 50
International Collaboration

- NUS (National Univ Singapore)
- University of Maryland
- Georgetown University
- Stony Brook University
- Singapore Botanical Garden
- APRU – Emergency Management Workshop at Tohoku Univ


Stony Brook University - 2013
Georgetown University - 2011
University of Maryland - 2011
Emergency/Disaster Management at UI
Incidents at Campus in Indonesia

Mahasiswa Tewas, Kampus Unsri Salahkan Panitia Diksar

Gedung di Kampus IPB Dramaga Bogor Kebakaran, 7 Mobil Pemadam Dikerahkan

KLB Hepatitis A di IPB dan Kerentanan Lingkungan Sekitar Kampus

Rekonstruksi Diksar Mapala Unisi Disaksikan Keluarga Korban Tewas
Incidents at Campus in Indonesia

Mobil Rombongan Mahasiswa UGM Terjun ke Jurang, Korban Tewas Jadi 2 Orang

UGM Kirim Tim dan Buka Posko Informasi Korban Kecelakaan 8 Mahasiswa di Pasuruan

Begini Penampakan Gedung Kampus D Gunadarma yang Ambruk

Hujan Angin, Pohon Tumbang Timpa Honda HRV di Kampus UGM
Objectives of Emergency/Disaster Management at UI

• Life safety
• Aset & property Protection
• Environmental Protection
• University Reputation
• Business Continuity
UI Emergency/Disaster Management

PROGRAM MANAGEMENT
- Leadership & Commitment
- Program Coordinator
- Program Committee
- Program Administration
- Law & Authorities
- Finance & Adm
- Record Management

PLANNING
- Planning & Design Process
- Risk Assessment
- Business Impact Analysis
- Resource Needs Assessment
- Performance Objectives

IMPLEMENTATION
- Common Plan Requirement
- Prevention
- Mitigation
- Crisis Communication & Public Information
- Warnings, Notifications & Communication
- Operational Procedures
- Incident Management
- Emergency Operation / Response Plan
- Business Continuity & Recovery

PROGRAM IMPROVEMENT & MAINTENANCE
- Program Review
- Corrective Actions
- Continual Improvement

EXERCISES & TESTS
- Program Evaluation
- Exercises & Test Methodology
- Design of Exercises & Tests
- Exercises & Tests Evaluation
- Frequency

TRAINING & EDUCATION
- Curriculum
- Goal of Curriculum
- Scope & Frequency of Instructions
- Incident Management System Training
- Record Keeping
- Regulatory & Program Requirements
- Public Education

Emergency/Disaster Management Evaluation

Methodology

- Methodology:
  - Document Review
  - Observation
  - Interview
  - Checklist

- Locations:
  - 2 selected Faculties
  - 1 selected Cluster
Emergency/Disaster Management Regulations & Standards

1. Undang-Undang No. 28 Tahun 2002 tentang Bangunan Gedung (Indonesian Law No. 28 regarding Building Constructions)
4. PP 50 Tahun 2012 tentang Sistem Manajemen K3. (Government Decree on OHSMS. No. 50 Year 2012)
7. Permenaker 186 Tahun 1999 tentang Unit Penanggulangan Kebakaran di Tempat Kerja (Ministry of Manpower Decree 186 Year 1999 regarding Fire Emergency Response Team in the Workplace)

OSHE (Occupational Safety, Health & Environmental) Unit UI
OSHE UI Policies & Guidelines

1. Rector Decree on The Implementation of OSHE in Laboratories
2. Rector Decree on OSHE Implementation at UI Campus
3. Rector Decree on Biorisk Management
4. Rector Decree on Chemical Safety
5. Rector Decree on Radiation OHS
6. Rector Decree on Construction Safety

1. Guidelines on OSHEMS at UI
2. Guidelines on OSHEMS at Laboratories
3. Practical Guidelines on OSHE at Laboratories
4. Guidelines on Chemical Safety in the Laboratory
5. Guidelines on Laboratory Biorisk Management
6. Guidelines on Radiation OHS
7. Standard on Laboratory Fumehood
9. Guidelines on Lock Out Tag Out
Risk Assessment for potential Emergencies at UI

1. Traffic & transportation emergency
2. Medical & mental emergency
3. Laboratory emergency
4. Extreme weather - Falling tree
5. Fire (Building & Forest)
6. Water drowning
7. Earthquake
IMPLEMENTATION
Student Orientation

OSHE (Occupational Safety, Health & Environmental) Unit UI
PANIC BUTTON UI

1. PANIC BUTTON UI Apps
   PLAY STORE

2. INSTALL APPLICATION

3. LOG IN
   SSO UI

4. PANIC BUTTON UI

EMERGENCY NO UI
14001

OSHE (Occupational Safety, Health & Environmental) Unit UI
Emergency/Disaster Training & Education

- Chainsaw safety Operation
- Basic Life Support
- Fire Fighting Training

- Program Management
- Planning
- Implementation
- Exercises & Tests
- Training & Education
- Program Improvement & Maintenance
Emergency/Disaster Management Exercises & Tests

- Program Management
- Planning
- Implementation
- Exercises & Tests
- Training & Education
- Program Improvement & Maintenance
Emergency/Disaster Management Evaluation
Elements NFPA 1600

- Program Management
- Planning
- Implementation
- Training & Education
- Exercises & Tests
- Program Improvement & Maintenance

OSHE (Occupational Safety, Health & Environmental) Unit UI
Emergency/Disaster Management Evaluation - Faculty 1

1 Program Management
- C (%): 35
- N/C (%): 46
- N/A (%): 19

2 Planning
- C (%): 25
- N/C (%): 38
- N/A (%): 37

3 Implementation
- C (%): 49
- N/C (%): 48
- N/A (%): 3

4 Training & Education
- C (%): 67
- N/C (%): 19
- N/A (%): 14

5 Exercises & Tests
- C (%): 17
- N/C (%): 83
- N/A (%): 0

6 Program Improvement & Maintenance
- C (%): 33
- N/C (%): 67
- N/A (%): 0

OSHE (Occupational Safety, Health & Environmental) Unit UI
Emergency/Disaster Management Evaluation - Faculty 2

1 Program Management
- C (%): 63
- N/C (%): 18
- N/A (%): 19

2 Planning
- C (%): 13.2
- N/C (%): 52.4
- N/A (%): 34.4

3 Implementation
- C (%): 52
- N/C (%): 45
- N/A (%): 3

4 Training & Education
- C (%): 57
- N/C (%): 29
- N/A (%): 14

5 Exercises & Tests
- C (%): 68
- N/C (%): 32
- N/A (%): 0

6 Program Improvement & Maintenance
- C (%): 96
- N/C (%): 0
- N/A (%): 4

OSHE (Occupational Safety, Health & Environmental) Unit UI
Emergency/Disaster Management Evaluation at Cluster

1 Program Management
- 33% C (%)
- 48% N/C (%)
- 19% N/A (%)

2 Planning
- 27% C (%)
- 39% N/C (%)
- 34% N/A (%)

3 Implementation
- 42% C (%)
- 55% N/C (%)
- 3% N/A (%)

4 Training & Education
- 57% C (%)
- 29% N/C (%)
- 14% N/A (%)

5 Exercises & Tests
- 77% C (%)
- 23% N/C (%)
- 0% N/A (%)

6 Program Improvement & Maintenance
- 68% C (%)
- 28% N/C (%)
- 4% N/A (%)
Emergency/Disaster Management Evaluation at Cluster - Subelements

- Continual Improvement: 100%
- Corrective Actions: 50%
- Program Review: 100%
- Frequency: 100%
- Exercises & tests Evaluation: 100%
- Design of Exercises & tests: 100%
- Exercises & tests Methodology: 67%
- Program Evaluation: 67%
- Public Education: 100%
- Regulatory & Program Requirements: 100%
- Record Keeping: 100%
- Incident Management System Training: 0%
- Scope & Frequency of Instructions: 100%
- Goal of Curriculum: 100%
- Curriculum: 50%
- Employee Assistance & Support: 50%
- Business Continuity & Recovery: 50%
- Emergency Operation/Response Plan: 50%
- Incident Management: 93%
- Operational Procedures: 56%
- Warnings, Notifications & Communication: 100%
- Crisis Communication & Public Information: 86%
- Mitigation: 50%
- Prevention: 66%
- Common Plan Requirement: 50%
- Performance Objectives: 50%
- Resource Needs Assessment: 50%
- Business Impact Analysis: 100%
- Risk assessment: 72%
- Planning & Design Process: 50%
- Record Management: 37.5%
- Finance & Administration: 93%
- Law & Authorities: 0%
- Program Administration: 0%
- Program Committee: 64%
- Program Coordinator: 33%
- Leadership & Commitment: 17%

C (%): Continual Improvement, N/C (%): Corrective Actions, N/A (%): Program Review
Emergency/Disaster Management Evaluation Comparisons

The Analysis Result of Conformity Based On 2016 Edition of NFPA 1600

OSHE (Occupational Safety, Health & Environmental) Unit UI
Conclusion

- Emergency Management at 2 (two) faculties & 1 cluster have been evaluated based on international standards
- Faculty 1 has in conformance 38% of the standards, while faculty 2 has in conformance 58.2%, and 1 Cluster has in conformance 51%
- Program Management in conformance of 44%, Planning 22%, Implementation 48%, Training & education 60%, Exercises & Tests 54% and Program improvement & maintenance 65%.
- Area for improvement including emergency planning, emergency management implementation & program management
References

• WISER. Wireless Information System for Emergency Responders. NIH. NLM. 2015.
• Universitas Indonesia Emergency/Disaster Response Procedures. 2015.
• Skripsi Isaka Adjie, Hikmah & Hubaidiyah. 2016.
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