



**Construction Management
First Year Welcoming Session**

Professor John Smallwood

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Staff

- **Academic:**

- Chris Allen (Acting-HoD)
- Prof Brink Botha
- Katharina Crafford
- Prof Winston Shakantu
- Prof John Smallwood

- **Administrative:**

- Mariana Botes (Secretary)
- Mark Abrey (Postgraduate Administrator)

Realities of construction (1)



55 + storey apartments, Surfers Paradise, Gold Coast, Australia (Smallwood, 2011)

Realities of construction (2)



Cape Town 2010 World Cup Stadium (Smallwood, 18 May 2007)

Realities of construction (3)



Tower cranes, Brisbane, Australia (Smallwood, 2011)



Programmes offered

- **BSc (Construction Studies)**
- **BSc (Honours) (Construction Management)**
- **BSc (Honours) (Construction Health & Safety Management) from 2020**
- **Coursework MSc (Built Environment):**
 - **5 Specialisations: Construction Management; Facilities Management; Project Management, Property Economics and Valuation, and Construction Health and Safety Management**
- **MSc (Construction Management) by research**
- **PhD (Construction Management) by research**



Accreditation

SACPCMP:

- **BSc (Construction Studies)**
- **BSc (Honours) (Construction Management)**
- **3 MSc (Built Env) specialisations: Construction Management; Project Management, and Construction Health and Safety Management**
- **September 2017 for 5 years**



What does academia entail?

- **Not just lecturing – myth!**
- **Lecturing not teaching:**
 - **Lecturing is teaching by discourse, which includes discussion and debate**
- **Reality – Academia is multi-dimensional and the activities are inter-related:**
 - **Career promotion (recruitment)**
 - **Research and publishing**
 - **Course development**
 - **Lecturing**
 - **Supervision and promotion of research**
 - **Community service / Engagement**
 - **Professional association**
 - **Council(s)**
 - **Administration relative to the above**



Built Environment Research Centre (BERC)

- Attached to the School of the Built Environment
- Research and publishing
- Director: Prof Winston Shakantu



Department of Higher Education Focus

- **Pass rates**
- **Throughput rates**
- **Research outputs**
- **M and D Outputs:**
 - **7 No. PhD graduates in 2018**

The BSc Construction Management degree programme offered at the NMMU (1)

- **BSc (Construction Studies) – 3 years**
- **BSc (Honours) (Construction Management) – 1 year**
- **Total of 4 years – completing Honours is important to:**
 - **Prepare construction managers to manage the business of construction and to pursue other careers such as construction project management**
 - **Register with the SACPCMP**
 - **Level of membership of the CIOB**



The BSc Construction Management degree programme offered at the NMMU (2)

- **Treatise of 12 000 – 15 000 words**
- **Solo endeavour unlike other universities**
- **Endeavour to publish conference, or even better, journal papers therefrom**



Content of the programme

- **3 Main fields - Construction Science and Technology; Construction Economics, and Construction Management:**
 - **Construction Science and Technology:**
 - Geometric Drawing; Materials and Methods; Environment and Services; Structures; Surveying; Physics; Mathematics, and Computer Science
 - **Construction Economics:**
 - Production Analysis; Statistics; Economics; Building Economics, and Property Economics
 - **Construction Management:**
 - Organisational Behaviour; Accounting; Business Management; Construction Management; Project Management; Commercial Law Company Law; Industrial Law, and Professional Practice
- **The new programme will be delivered from first year in 2020**



Subjects per year (1)

- **First year of study:**
 - **Building Science (Material & Methods) 1**
 - **Building Science (Environment & Services) 1**
 - **Building Science (Structures) 1**
 - **Mathematics (Special) 1**
 - **Physics (Special) 1**
 - **Geometric Drawing 1**
 - **Basic Surveying 1**
 - **Computer Science (End User Computing)**
 - **Production Analysis 1**
 - **Information Technology for Building Disciplines 1**



Subjects per year (2)

- **Second year of study:**
 - **Building Science (Material & Methods) 2**
 - **Building Science (Environment & Services) 2**
 - **Building Science (Structures) 2**
 - **History of the Construction Industry 1**
 - **Organisational Behaviour 2**
 - **Statistics 2**
 - **Business Management 1**
 - **Production Analysis 2**
 - **Introduction to Micro Economics (Special) 1**
 - **Information Technology for Building Disciplines 2**



Subjects per year (3)

- **Third year of study:**
 - **Building Science (Material & Methods) 3**
 - **Building Science (Environment & Services) 3**
 - **Building Science (Structures) 3**
 - **Production Analysis 3**
 - **Building Economics 3**
 - **Construction Management 3**
 - **Accounting 1**



Subjects per year (4)

- **Fourth year of study – BSc (Honours):**
 - **Construction Management 4**
 - **Building Economics (Special) 3**
 - **Information Technology for Building Disciplines 3**
 - **Property Development Economics 4**
 - **Project Management 4**
 - **Building Science (Material & Methods) 4**
 - **Professional Practice for Construction Management 4**
 - **Construction Management Treatise 4**
 - **Commercial Law 1**
 - **Commercial Law (Building Disciplines) 1**
 - **Commercial Law 1**
 - **Industrial Law 1**



Student performance (1)

- **Course:**
 - Pre-requisites
 - Promotion rules
 - Maximum amount of credit values per year of study
 - Maximum number of years per course (1 Year more than the standard length of a degree)
- **Scheduling**
- **Time management - programme and schedule studies**
- **Attendance of lectures – the Nelson Mandela University is not a distance learning institution**
- **Unit for Student Counselling - visit if you have problems**
- **Reading - the pre-requisite for studying and success**
- **Prescribed books - acquire!**



Student performance (2)

- **Books on short loan**
- **Department subscribes to 'continuous assessment':**
 - **No exams**
 - **No supplementary exams**
- **Other departments subscribe to tests and exams**



Literature

Available in the library or online:

- **Journals:** *Building Research & Information; Construction Management & Economics; Engineering, Construction & Architectural Management; Journal of Construction (ASOCSA); Journal of Construction Project Management and Innovation, and Journal of Engineering Design and Technology*
- **Magazines:** *CBE Bulletin; Concrete; Construction Manager; Construction World; National Safety; SA Builder; SA Property; Shape Shifter; The Civil Engineering Contractor, and To Build*



Construction Management Student Society (CMSS) (1)

- **Rationale / Why?**
 - To contribute to developing a construction management identity
 - Raise awareness of the discipline, profession, and practice of CM
 - Develop student leaders
- **Participation required**
- **Active**
- **Ideal activities:**
 - **Term 1:**
 - Newsletter
 - Welcome function
 - Industry / Academia function
 - Societies Day
 - Factory visit e.g. brick manufacturing
 - Fabrication and sale of CMSS regalia such as shirts, peaks, and windbreakers



Construction Management Student Society (CMSS) (2)

- **Term 2:**
 - Newsletter
 - Industry / Academia function
 - Factory visit
 - Golf day
 - Open Day (public careers event)
- **Term 3:**
 - Newsletter
 - Industry / Academia function
 - Factory visit
 - Soccer derby
 - CM dinner
 - AGM



Construction Management Student Society (CMSS) (3)

- **Term 4:**
 - Newsletter
 - Industry / Academia function
 - Site visit
 - Publication of CMSS magazine
 - Final Year students' dinner
- **Annual:**
 - Magazine – Construction Wise



Construction Management culture (1)

The following are important:

- **Branding:**
 - Performance during vacation work
 - Performance of BSc (Honours) (Constr Man) graduates in industry
 - Treatises (Research output)
 - Papers (Research output)
 - Identity (Regalia such as hard hats, shirts, and peaks)
- **Academic performance in all modules**
- **Active CMSS**
- **Third year 'portfolio' project**
- **Final year:**
 - 'Business Plan' project
 - 'Project Management' project



Construction Management culture (2)

- **‘Construction Management’ group visit to reinforce the identity**

South African Council for the Construction and Project Management Professions (SACPCMP)

- **Construction and Project Management Professions Act No. 48 of 2000**
- **Construction Managers, Construction Project Managers, Construction Health and Safety practitioners, and Construction Mentors are required to register with the SACPCMP**
- **Responsible for Construction Management, Construction Health and Safety, and Construction Project Management accreditation**
- **www.sacpcmp.org.za**
- **Student Chapter**
- **Annual student subscription – free**



Association of Construction Project Managers (ACPM)

- Voluntary association with which Construction Project Managers and other construction professionals associate
- www.acpm.co.za
- Annual student subscription – R50.00



Association of Construction Health and Safety Management (ACHASM)

- **Voluntary association with which Construction H&S Professionals and Practitioners and other construction professionals associate**
- **www.achasm.co.za**
- **Annual student subscription – free**



Chartered Institute of Building (CIOB)

- **Voluntary association with which Construction Managers and other construction professionals associate**
- **www.ciob.org**
- **Annual student subscription – free**
- **Novus:**
 - **Dedicated, passionate group of young professionals who place the CIOB at the heart of their career**
 - **Prepares young people to be the next generation of construction industry leaders and provide a direct link from undergraduate to Chartered membership**
- **A ‘must feature’ membership on a CV when applying for employment in the United Kingdom**



Departmental notice board

- **Outside department entrance (Ground Floor, Block C, Summerstrand North Campus)**
- **For the students**
- **Contributions required**
- **Department and CMSS responsible**



Communications and records

- **Oral communication is the No. 1 Construction Management skill**
- **However, written communication is critical in the built environment and construction**
- **Memorandum system – consult the secretary**
- **E-mail – always use your Nelson Mandela University address and also read the e-mail**
- **Schedule meetings with lecturers – do not just arrive**
- **Apologies – tender if you are going to miss a lecture**
- **Attendance registers – do not sign for other students**
- **Format, grammar, and spelling**
- **Language**
- **Professionalism**



Career promotion

- **Should be the No. 1 activity**
- **School specific visits or similar – role models required**
- **Nelson Mandela University Open Day – CMSS, junior, and senior students**



HIV and AIDS

- **Contrary to popular belief there is a link**
- **Safe sex and other activities**



Environment

- **The Nelson Mandela University is a nature reserve**
- **Control your vehicle speed: ≤ 60 km/h or ≤ 40 km/h (buck)**
- **Respect animals (evil deeds result in bad karma)**
- **Do not waste water**
- **Do not litter**
- **No smoking policy**
- **Recycling – glass, paper, plastic, and tins**



Health, Safety and Security (1)

- **Daily exercise**
- **Diet:**
 - **Nutrients e.g. the tomato is the No. 1 power food**
 - **No junk food**
- **Weight:**
 - **Know your body mass index (BMI)**
 - **Know your circumference**
- **Smoking – ‘the absence of a cough does not indicate that smoking is healthy’**
- **Drugs – ‘do not take drugs’**
- **Sex – ‘safe sex’**
- **Personal safety**
- **Back up your laptop and / or desktop and memory stick**



Health, Safety and Security (2)

- **Generic Departmental health and safety (H&S):**
 - You will receive a dedicated H&S lecture
- **Construction H&S:**
 - You should be inducted when you visit a site (Construction Regulations)
 - You must wear:
 - A hard hat
 - Safety footwear
 - Reflective waistcoat (possibly)
 - Eye protection (possibly)



How to succeed?

- **Your job is to study for four years!**
- **Optimum mental and physical health**
- **Lecture attendance (100%)**
- **Daily study – 5 days a week plus**
- **‘Chisel away’**
- **Address problems immediately - communicate!**
- **Plan your work, and work your plan!**
- **Read voraciously**
- **Develop your command of the English language:**
 - **No: ‘about’, ‘cover’, ‘feel’, ‘like’, ‘look’, ‘in’; ‘on’, and ‘over’**
 - **British Commonwealth ‘s’ versus American ‘z’**
- **Take ownership**



Nelson Mandela University 'values'

- **Diversity**
- **Excellence**
- **Ubuntu**
- **Social justice and equality**
- **Integrity**
- **Environmental stewardship**



Departmental 'values'

- **H&S**
- **'Adult behaviour'**
- **Professionalism**
- **Global orientation**
- **Multi-cultural**
- **Respect for people**
- **'Right first time'**
- **'Get the job done'**
- **Written communication**
- **Resolve problems and meet challenges**



The curse of South Africanitis (1)

- **'If', 'but', 'maybe', 'when', 'can't', and other words**
- **"The referee was against us"**
- **"It is 's fault"**
- **Range of other excuses – 'excusitis'**
- **Shortcuts**
- **Not taking ownership**
- **'Shifting the blame'**
- **'Stories'**
- **Bullshitting**
- **Lying**
- **Non-delivery**



The curse of South Africanitis (2)

- **Late delivery**
- **Plagiarism**
- **Littering**
- **Jaywalking**
- **Generally not following procedures**
- **Crime – ‘if it does not belong to you, do not touch it!’**
- **General lack of respect**
- **Ringling mobile phones during a meeting (then some people still talk)**

Plagiarism

- **What is plagiarism?**
 - Unintentionally using someone else's work without acknowledgement
 - Deliberately pretending someone else's work is your own
- **Nelson Mandela University's rules with respect to plagiarism:**
 - The prospectus refers to plagiarism as misconduct: "Commits an act of plagiarism, including the copying of another student's assignment, or copyright infringement."
 - 0% will be awarded
 - Disciplinary hearing with plagiarism offence can lead to:

Serious Offence	First Offence	Second Offence
Plagiarism	Suspension for a period of 1 year	Expulsion



Combating plagiarism

- **No internet references**
- **No Wikipedia**
- **Monitoring:**
 - **Scanning for:**
 - **'Familiar' paragraphs and sentences**
 - **American 'z' or spelling such as labor**
 - **Using Google**
 - **Using sophisticated plagiarism software such as Turnitin**



Departmental 'interventions'

- **Mentoring of first year students:**
 - Quarterly contact meetings between the Department and students
- **Student / Department consultative committee:**
 - Meets quarterly
 - Year representatives and HoD and Acting-HoD



Programme Directors

- **Programmes:**
 - **BSc (Construction Studies) - Chris Allen**
 - **BSc (Honours) (Construction Management) - Professor John Smallwood:**
 - **083 659 2492**
 - **john.smallwood@mandela.ac.za**
- **First reference if a problem:**
 - **After a lecturer has been approached by the class representative and no 'response'**



Contact details (1)

- **Acting-HoD – Chris Allen:**
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- **Faculty Administrator – Mr Jason Ah Tow:**
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 - Jason.AhTow@mandela.ac.za
 - Room C113



Web page / Social media

- **Web page: www.mandela.ac.za/construction**
- **The official Nelson Mandela University Construction Management Facebook page: <https://www.facebook.com/LM1984/>**
- **Nelson Mandela University BIM Club Facebook page: <https://www.facebook.com/groups/1944262612258213/>**