



science
& technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA

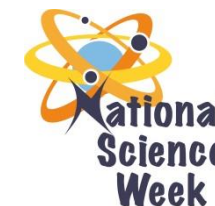


SAASTA
South African Agency for Science
and Technology Advancement

NATIONAL SCIENCE WEEK

Deepening our Democracy through Science

28 July – 4 August 2018



| | | | | | |
|------------------------|-------------------------------------|--|----------------|--------------------|-----|
| Organisation: | Mangosuthu University of Technology | Project Leader: | Prof A M Msomi | Province/s: | KZN |
| Connect with us | Website: | www.mut.ac.za | | | |
| | Facebook: | Mangosuthu University of Technology | | | |
| | Twitter: | @MangosuthuT | | | |
| | Phone: | 031 907 7602 | | | |
| | Email: | Alfred@mut.ac.za | | | |

National Science Week events and activities:

| DATE & TIME | VENUE & LOCATION | ACTIVITY | AUDIENCE | CONTACT DETAILS | BOOKINGS REQUIRED? |
|-------------|-----------------------------|---|---|---|--------------------|
| 30/07/2018 | Ulundi Municipality Chamber | Geometry <ul style="list-style-type: none"> Circle Geometry grade 10 – 12 Electricity –theory and practical <ul style="list-style-type: none"> Momentum- theory and practical | Mathematics educators Physical Science educators | Prof MC Kweyama 031 907 7418 Mr Bibin-George 031 9077683 | Yes |
| 31/07/2018 | Ulundi Municipality Chamber | Mathematics of Finance Acids and Bases practical, Stoichiometry | Mathematics educators Physical Science educators | Prof M C Kweyama 031 9077418 Mr T Mpanza 031 819 9390 | Yes |

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| | | <p>CAREER EXHIBITION FOR LEARNERS</p> <p>Agriculture Department</p> <ul style="list-style-type: none"> Planting Seedling using Seedlings Mix, pH Test and Ec Test, Electron Microscope, Cow model, Chicken model, Moisture feed tester Tractor Demonstration with plough <p>Community Extension Department</p> <ul style="list-style-type: none"> Slide show presentation about Community Extension Programme. Testing of PH in different solution using blue and pink litmus papers (i.e. Soil solution, Acidic solution, Base or Alkaline solution and distilled water solution) <p>Food Science</p> <ul style="list-style-type: none"> Food preservation with the use of varies preservation solutions and preservation techniques, Packaging technology/ and its use, Agro-processing production/products <p>Nutrition</p> <ul style="list-style-type: none"> Health assessment tools, Anthropometric assessments (engagement activity) <p>Chemistry Department</p> <ul style="list-style-type: none"> Titrations (Acid and bases), spontaneous and nonspontaneous reactions, volcano demonstrations, Blue bottle demonstrations and reduction oxidation reactions | <p>School learners and general public</p> | <p>Mr Sbusiso Tshabalala Ms Nondumiso Mahlalela Mr Lucky Dube</p> <p>Mr N Mavundla, Ms N Ndlovu, Ms Z Mkhize</p> <p>Mr T Mpanza</p> | |
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| | | <ul style="list-style-type: none"> • Job opportunities <p>Civil Engineering Department</p> <ul style="list-style-type: none"> • Set of sieves for soil engineering • Civil Eng. Construction materials (stones, cement, sand, bitumen etc.) • Civil engineering photos (completed projects) <p>Surveying Department</p> <ul style="list-style-type: none"> • Total station • Levelling • Prision rod for distance measuring • Staff measure • Niko theodolite • Tripod <p>Electrical Engineering Department</p> <ul style="list-style-type: none"> • Displaying an Automated Industrial Material Sorting and Transportation System <p>Biomedical Technology</p> <ul style="list-style-type: none"> • Observation of stained slides using an electron microscope. • Displaying different types of laboratory specimen collection tubes, culture plates and others. • Demonstrating gram staining procedure. • Displaying educational charts, e.g. Cervical Cancer Awareness chart and others. • Admission requirements to the Biomedical Sciences Programme. • Introducing the new Medical | | <p>Mr P Bhengu</p> <p>Mr SB Msimang</p> <p>Mr J Rwafa</p> <p>Mr P Khomo Ms N Sibiya</p> | |
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| | | <p>Laboratory Sciences Bachelor's Degree (4 year programme)</p> <p>Construction Management & Quantity Surveying (Building Department)</p> <ul style="list-style-type: none"> • The importance of Maths and Science in the engineering faculty. • Entry requirements into the Building Department (Construction Management & Quantity Surveying). • What Jobs are available after completing the Diploma? • Show and Tell - Plant and Machinery (Models) • Documentation (Bills of Quantities) | | | |
| 01/08/2018 | Ulundi Municipality Hall | <p>CAREER EXHIBITION FOR LEARNERS</p> <p>Agriculture Department</p> <ul style="list-style-type: none"> • Planting Seedling using Seedlings Mix, pH Test and Ec Test, Electron Microscope, Cow model, Chicken model, Moisture feed tester • Tractor Demonstration with plough <p>Community Extension Department</p> <ul style="list-style-type: none"> • Slide show presentation about Community Extension Programme. • Testing of PH in different solution using blue and pink litmus papers (i.e. Soil solution, Acidic solution, Base or Alkaline solution and distilled water solution) <p>Food Science</p> | School learners and general public | <p>Mr Sbusiso Tshabalala</p> <p>Ms Nondumiso Mahlalela</p> <p>Mr Lucky Dube</p> <p>Mr N Mavundla,</p> <p>Ms N Ndlovu,</p> | Yes |

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| | | <ul style="list-style-type: none"> • Food preservation with the use of various preservation solutions and preservation techniques, Packaging technology/ and its use, Agro-processing production/products <p>Nutrition</p> <ul style="list-style-type: none"> • Health assessment tools, Anthropometric assessments (engagement activity) <p>Chemistry Department</p> <ul style="list-style-type: none"> • Titrations (Acid and bases), spontaneous and nonspontaneous reactions, volcano demonstrations, • Blue bottle demonstrations and reduction oxidation reactions <p>Information and Communication Technology</p> <ul style="list-style-type: none"> • Demonstrate peer to peer and voice over internet protocol communication, system units, virtual machine and storage, • Developing an application that allows user interaction, manipulate data and display output • PowerPoint presentation slide that talks to common IT concepts <p>Chemical Engineering Department</p> <ul style="list-style-type: none"> • Process rig (equipments which are found in the process plant) • PowerPoint presentation on career opportunities and relevant potential employment • Display a computerised software of | <p>School learners and general public</p> | <p>Ms Z Mkhize</p> <p>Mr T Mpanza</p> <p>Ms Thabede</p> <p>Mr Makhathini Mr Ndlovu</p> | |
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| | Ulundi Shopping Malls | <p>Boyle's law which will give learners practical experience</p> <p>Technology Station in Chemicals</p> <ul style="list-style-type: none"> • Workshop on entrepreneurship • PowerPoint presentation in the mall about the offerings of Technology Station and Chemicals • Exhibition of cosmetics and detergents <p>Mechanical Engineering Department</p> <ul style="list-style-type: none"> • Requirements to enrol in Mechanical engineering and opportunities to enrol in the bridging course • Demonstration of students' projects and engineers • Job opportunities <p>Civil Engineering Department</p> <ul style="list-style-type: none"> • Set of sieves for soil engineering • Civil Eng. Construction materials (stones, cement, sand, bitumen etc.) • Civil engineering photos (completed projects) <p>Surveying Department</p> <ul style="list-style-type: none"> • Total station • Levelling • Prision rod for distance measuring • Staff measure • Niko theodolite • Tripod <p>Electrical Engineering Department</p> <ul style="list-style-type: none"> • Displaying an Automated Industrial Material Sorting and Transportation | <p>Educators, communities and learners</p> <p>Grade 9 - 12</p> | <p>Ms Mkhize Ms Ngubane</p> <p>Mr Zondi</p> <p>Mr P Bhengu</p> <p>Mr SB Msimang</p> | |
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| | | <p>System</p> <p>Biomedical Science Department</p> <ul style="list-style-type: none"> • Observation of stained slides using an electron microscope. • Displaying different types of laboratory specimen collection tubes, culture plates and others. • Demonstrating gram staining procedure. • Displaying educational charts, e.g. Cervical Cancer Awareness chart and others. • Admission requirements to the Biomedical Sciences Programme. • Introducing the new Medical Laboratory Sciences Bachelor's Degree (4 year programme) <p>Construction Management & Quantity Surveying (Building Department)</p> <ul style="list-style-type: none"> • The importance of Maths and Science in the engineering faculty. • Entry requirements into the Building Department (Construction Management & Quantity Surveying). • What Jobs are available after completing the Diploma? • Show and Tell - Plant and Machinery (Models) • Documentation (Bills of Quantities) | | <p>Mr J Rwafa</p> <p>Mr P Khomo Ms N Sibiya</p> | |
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| DATE & TIME | VENUE & LOCATION | ACTIVITY | AUDIENCE | CONTACT DETAILS | BOOKINGS REQUIRED? |

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| 02/08/2018 | Ulundi Municipality Hall | <p>CAREER EXHIBITION FOR LEARNERS</p> <p>Agriculture Department</p> <ul style="list-style-type: none"> Planting Seedling using Seedlings Mix, pH Test and Ec Test, Electron Microscope, Cow model, Chicken model, Moisture feed tester Tractor Demonstration with plough <p>Community Extension Department</p> <ul style="list-style-type: none"> Slide show presentation about Community Extension Programme. Testing of PH in different solution using blue and pink litmus papers (i.e. Soil solution, Acidic solution, Base or Alkaline solution and distilled water solution) <p>Food Science</p> <ul style="list-style-type: none"> Food preservation with the use of varies preservation solutions and preservation techniques, Packaging technology/ and its use, Agro-processing production/products <p>Nutrition</p> <ul style="list-style-type: none"> Health assessment tools, Anthropmetric assessments (engagement activity) <p>Chemistry Department</p> <ul style="list-style-type: none"> Titrations (Acid and bases), spontaneous and nonspontaneous reactions, volcano demonstrations, Blue bottle demonstrations and reduction oxidation reactions <p>Information and Communication Technology</p> <ul style="list-style-type: none"> Demonstrate peer to peer and voice | | Same Colleagues | Yes |
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| | <p>Ulundi Shopping Malls</p> <p>Ulundi Municipality Hall</p> | <p>over internet protocol communication, system units, virtual machine and storage,</p> <ul style="list-style-type: none"> • Developing an application that allows user interaction, manipulate data and display output • PowerPoint presentation slide that talks to common IT concepts <p>Chemical Engineering Department</p> <ul style="list-style-type: none"> • Process rig (equipments which are found in the process plant) • PowerPoint presentation on career opportunities and relevant potential employment • Display a computerised software of Boyle’s law which will give learners practical experience <p>Technology Station in Chemicals</p> <ul style="list-style-type: none"> • Workshop on entrepreneurship • PowerPoint presentation in the mall about the offerings of Technology Station and Chemicals • Exhibition of cosmetics and detergents <p>Mechanical Engineering Department</p> <ul style="list-style-type: none"> • Requirements to enrol in Mechanical engineering and opportunities to enrol in the bridging course • Demonstration of students’ projects and engineers • Job opportunities <p>Civil Engineering Department</p> <ul style="list-style-type: none"> • Set of sieves for soil engineering | | | |
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| | | <ul style="list-style-type: none"> • Civil Eng. Construction materials (stones, cement, sand, bitumen etc.) • Civil engineering photos (completed projects) <p>Surveying Department</p> <ul style="list-style-type: none"> • Total station • Levelling • Prism rod for distance measuring • Staff measure • Niko theodolite • Tripod <p>Electrical Engineering Department</p> <ul style="list-style-type: none"> • Displaying an Automated Industrial Material Sorting and Transportation System <p>Biomedical Science Department</p> <ul style="list-style-type: none"> • Observation of stained slides using an electron microscope. • Displaying different types of laboratory specimen collection tubes, culture plates and others. • Demonstrating gram staining procedure. • Displaying educational charts, e.g. Cervical Cancer Awareness chart and others. • Admission requirements to the Biomedical Sciences Programme. • Introducing the new Medical Laboratory Sciences Bachelor's Degree (4 year programme) <p>Construction Management & Quantity Surveying (Building Department)</p> | | | |
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| | | <ul style="list-style-type: none"> • The importance of Maths and Science in the engineering faculty. • Entry requirements into the Building Department (Construction Management & Quantity Surveying). • What Jobs are available after completing the Diploma? • Show and Tell - Plant and Machinery (Models) • Documentation (Bills of Quantities) | | | |
| 03/08/2018 | Ulundi Municipality Hall | <p>CAREER EXHIBITION FOR LEARNERS</p> <p>Agriculture Department</p> <ul style="list-style-type: none"> • Planting Seedling using Seedlings Mix, pH Test and Ec Test, Electron Microscope, Cow model, Chicken model, Moisture feed tester • Tractor Demonstration with plough <p>Community Extension Department</p> <ul style="list-style-type: none"> • Slide show presentation about Community Extension Programme. • Testing of PH in different solution using blue and pink litmus papers (i.e. Soil solution, Acidic solution, Base or Alkaline solution and distilled water solution) <p>Food Science</p> <ul style="list-style-type: none"> • Food preservation with the use of varies preservation solutions and preservation techniques, Packaging technology/ and its use, Agro-processing production/products | | Same Colleagues | Yes |

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| | | <p>Nutrition</p> <ul style="list-style-type: none"> • Health assessment tools, Anthropometric assessments (engagement activity) <p>Chemistry Department</p> <ul style="list-style-type: none"> • Titrations (Acid and bases), spontaneous and nonspontaneous reactions, volcano demonstrations, • Blue bottle demonstrations and reduction oxidation reactions <p>Information and Communication Technology</p> <ul style="list-style-type: none"> • Demonstrate peer to peer and voice over internet protocol communication, system units, virtual machine and storage, • Developing an application that allows user interaction, manipulate data and display output • PowerPoint presentation slide that talks to common IT concepts <p>Chemical Engineering Department</p> <ul style="list-style-type: none"> • Process rig (equipments which are found in the process plant) • PowerPoint presentation on career opportunities and relevant potential employment • Display a computerised software of Boyle's law which will give learners practical experience <p>Technology Station in Chemicals</p> <ul style="list-style-type: none"> • Workshop on entrepreneurship • PowerPoint presentation in the mall | | | |
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| | <p>Ulundi Shopping Malls</p> <p>Ulundi Municipality Hall</p> | <p>about the offerings of Technology Station and Chemicals</p> <ul style="list-style-type: none"> • Exhibition of cosmetics and detergents <p>Mechanical Engineering Department</p> <ul style="list-style-type: none"> • Requirements to enrol in Mechanical engineering and opportunities to enrol in the bridging course • Demonstration of students' projects and engineers • Job opportunities <p>Civil Engineering Department</p> <ul style="list-style-type: none"> • Set of sieves for soil engineering • Civil Eng. Construction materials (stones, cement, sand, bitumen etc.) • Civil engineering photos (completed projects) <p>Surveying Department</p> <ul style="list-style-type: none"> • Total station • Levelling • Prision rod for distance measuring • Staff measure • Niko theodolite • Tripod <p>Electrical Engineering Department</p> <ul style="list-style-type: none"> • Displaying an Automated Industrial Material Sorting and Transportation System <p>Biomedical Sciences Department</p> <ul style="list-style-type: none"> • Observation of stained slides using an electron microscope. • Displaying different types of laboratory specimen collection tubes, culture plates | | | |
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| | | <p>and others.</p> <ul style="list-style-type: none"> • Demonstrating gram staining procedure. • Displaying educational charts, e.g. Cervical Cancer Awareness chart and others. • Admission requirements to the Biomedical Sciences Programme. • Introducing the new Medical Laboratory Sciences Bachelor's Degree (4 year programme) <p>Construction Management & Quantity Surveying (Building Department)</p> <ul style="list-style-type: none"> • The importance of Maths and Science in the engineering faculty. • Entry requirements into the Building Department (Construction Management & Quantity Surveying). • What Jobs are available after completing the Diploma? • Show and Tell - Plant and Machinery (Models) • Documentation (Bills of Quantities) | | | |
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| DATE & TIME | VENUE & LOCATION | ACTIVITY | AUDIENCE | CONTACT DETAILS | BOOKINGS REQUIRED? |
|-------------|--|-----------------------------------|---|--|--------------------|
| 04/08/2018 | Ulundi Municipality Hall/ Airport Boardroom | Workshops on NSW 2018 reflections | Mathematics and Physical Science Educators Subjects advisors Indunas Amakhosi | Prof A M Msomi 031 907 7602 Prof B Nkonki- Mandleni 031 907 9413 | Yes |

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| | | | Municipalities in the area NGOs promoting Maths and Science Scientists | Ms X V Ngubane 031 907 7719 | |
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