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अनुक्रमणिका

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महाविद्यालय की स्थापना का संक्षिप्त परिचय

उत्तर प्रदेश को खनिज सम्पदा एवं पर्यटन स्थलों से समृद्ध करने वाले बुन्देलखण्ड क्षेत्र में वर्ष 1994 के पूर्व कृषि उच्च शिक्षा संस्थानों में राठ स्थित कृषि महाविद्यालय ही एक मात्र दीप स्तम्भ था, जो बुन्देलों की तालाब आधारित कृषि पद्धति एवं विविध वन औषधियों के सामयिक विकास की दृष्टि से बहुत ही दयनीय स्थिति में थे, बांदा जनपद के प्रगतिशील किसान एवं शिक्षा जगत के दर्द को उजागर करने वाले शिक्षा प्रेमियों के सुझाव से क्षेत्र के इस दर्द की अनुभूति बांदा जनपद की पंचायत का वर्ष 1989 से नेतृत्व सम्भाल रहे तत्कालीन अध्यक्ष माननीय स्व. ठा. चन्द्रपाल सिंह जी, पारा को हुई और उन्होंने एक कृषि महाविद्यालय के स्थापना का दृढ संकल्प लिया जिला पंचायत बांदा के तत्कालीन अपर मुख्य अधिकारी श्री ए.के. बनर्जी, बुन्देलखण्ड विश्वविद्यालय के कुलपति प्रोफेसर कलियान सिंह, सहायक कुलसचिव डॉ. कमलेश शर्मा, प्राचार्य स्व. श्री जगवीर सिंह एवं पूर्व प्रधानाचार्य श्री बाबूलाल गुप्ता जी ने ठा. चन्द्रपाल सिंह के इस संकल्प को स्थाई आधार दिया और कृषि महाविद्यालय की स्थापना से सम्बन्धित समस्त औपचारिकताओं की पूर्ति की एवं शासन स्तर पर उत्तर प्रदेश के तत्कालीन राज्यपाल महामहिम श्री मोतीलाल वोरा जी उनके सचिव ए.डी.सी. श्री राकेश गर्ग, आई.ए.एस. जो पूर्व में जिलाधिकारी बांदा रह चुके थे एवं एम.एल.सी. स्व. रामसजीवन सिंह, अहार ने विशेष सहयोग प्रदान किया।

प्रगतिशील राष्ट्रकवि स्व. बाबू केदार नाथ अग्रवाल द्वारा महाविद्यालय के शिक्षा सत्र का शुभारम्भ किया गया और 01 फरवरी 1994 ई. को महाविद्यालय में शिक्षण कार्य आरम्भ हो गया। महाविद्यालय के भवन निर्माण का शिलान्यास पूर्व केन्द्रीय मानव संसाधन विकास मंत्री माननीय स्व. ठा. अर्जुन सिंह जी के कर कमलों द्वारा सम्पादित हुआ।

माननीय स्व. ठा. चन्द्रपाल सिंह जी के इस संकल्प को साकार रूप प्रदान करने में क्षेत्र के सभी जन-प्रतिनिधियों, बुद्धिजीवियों एवं प्रमुख कृषकों तथा व्यवसायियों का भी महत्वपूर्ण योगदान रहा और महाविद्यालय आरम्भ से ही दिन-दूनी, रात-चौगुनी गति से अपनी विकास यात्रा की ओर अग्रसर हो रहा है तथा इस महाविद्यालय ने स्वयं को सुदृढ़ करते हुए अपने पैरों खड़े होने की सामर्थ्य से कृषि शिक्षा को नये आयाम दिये।

महाविद्यालय का आदर्श वाक्य



जिला परिषद कृषि महाविद्यालय, बाँदा का आदर्श वाक्य- “अन्नं साम्राज्यानांमधिपतिः” है, जिसका अर्थ है कि “अन्न ही साम्राज्यों का स्वामी है”।

अस्तु इस कृषि महाविद्यालय में शिक्षा ग्रहण करने वाले छात्रों को इस विश्वास के साथ प्रवेश दिया जाता है कि महाविद्यालय में कृषि सम्बन्धी शिक्षा प्राप्त कर वे महाविद्यालय के आदर्श वाक्य में निहित भावना को समाज के उन वर्गों तक पहुँचायें जो कृषि से सम्बन्धित हैं और कृषि की उत्पादक क्षमता बढ़ाते हुये समाज की कृषि सम्बन्धी आवश्यकताओं की पूर्ति करते हुये देश का विकास करें।

महाविद्यालय विद्या का मन्दिर होता है। जहाँ विभिन्न जातियों, धर्मों एवं विभिन्न सम्प्रदायों के छात्र-छात्रायें शिक्षा ग्रहण करते हैं। जिनसे एक राष्ट्रीय व्यक्तित्व एवं चरित्र की आशा की जाती है। छात्रों से यह भी अपेक्षित है कि वे इस विद्या रूपी महाविद्यालय के परिसर, पुस्तकालय, वाटिका एवं भवनों को स्वच्छ रखते हुये स्वच्छ वातावरण का निर्माण करें तभी वे इस आदर्श महाविद्यालय के आदर्श छात्र बन सकेंगे एवं भारत वर्ष का विकास हो सकेगा।



श्रीमती निर्मला सिंह

अध्यक्ष / प्रबन्धक - शिक्षा / प्रबन्ध समिति

अध्यक्ष/प्रबन्धक की कलम से.....

बुन्देलखण्ड के अति पिछड़े क्षेत्र में स्थित जिला परिषद कृषि महाविद्यालय विगत 23 वर्षों से कृषि शिक्षा के क्षेत्र में अग्रणी भूमिका निभा रहा है जिसमें महाविद्यालय के प्राचार्य, शिक्षक शिक्षणेत्तर कर्मचारियों छात्र/छात्राओं का अमूल्य योगदान रहा है। महाविद्यालय का मुख्य उद्देश्य शिक्षा के साथ-साथ सामाजिक, आर्थिक रूप से पिछड़े किसानों को छात्रों एवं शिक्षकों द्वारा तकनीकी जानकारी प्रदान करना एवं उनको कृषि के साथ-साथ पशुपालन, बागवानी फल संरक्षण एवं कृषि आधारित व्यवसायिक उद्योगों में भागीदारी, सुनिश्चित कराना है।

महाविद्यालय के विकास में जिन महानुभावों, बुद्धजीवियों, शिक्षाविदों, शिक्षकों, कर्मचारियाँ छात्र/छात्राओं एवं उन सभी का जिनका प्रत्यक्ष या परोक्ष रूप से योगदान रहा मैं उन सभी का आभार व्यक्त करती हूँ।

महाविद्यालय के विकास में मुझसे जितना सहयोग हो सकता है मैं करने के लिए कृत संकल्प हूँ।

महाविद्यालय के समस्त पदाधिकारी, शिक्षक, कर्मचारियों को मैं धन्यवाद देती हूँ और मेरी शुभकामनाएँ हैं कि महाविद्यालय अपनी विकास की ओर सदैव अग्रसर रहें।

श्रीमती निर्मला सिंह



महाविद्यालय प्राचार्य के दो शब्द

नये साल के शुभारम्भ के अवसर पर महाविद्यालय परिवार के सम्मानित शिक्षक-बन्धुओं, शिक्षणोत्तर कर्मचारियों, प्रतिभाशाली युवा छात्र/छात्राओं, अभिभावकों एवं समस्त नागरिकों का हार्दिक अभिनन्दन करते हुये सुखमय और शान्तिमय, मंगलमय जीवन की शत्-शत् स्वर्णिम कामनायें अर्पित करता हूँ। जिला परिषद कृषि महाविद्यालय बाँदा, चित्रकूट धाम मण्डल ही नहीं अपितु बुन्देलखण्ड विश्वविद्यालय का एक सर्वश्रेष्ठ महाविद्यालय है। यहाँ अनुशासन की उदान्त परम्परा है। महाविद्यालय निरन्तर प्रगति पथ पर अग्रसर है। विगत शैक्षिक सालों का परीक्षा फल शत-प्रतिशत रहा है। इसका श्रेय यहाँ के अनुभव एवं ज्ञान सम्पन्न आचार्यों एवं महाविद्यालय की प्रबन्ध समिति को जाता है। इस महाविद्यालय को जो प्रतिष्ठा मिली है इसकी रक्षा का दायित्व सभी पर है। छात्र/छात्राओं को सर्वांगीण विकास के लिए हम कृत संकल्प हैं।

इक्कीसवीं सदी में शिक्षा के क्षेत्र में अनेक प्रकार के परिवर्तन समय की माँग है। नियंत्रण और अनुशासित वातावरण की संरचना ही शिक्षा का प्रमुख अभिप्राय है। शिक्षा सतत् विकास की प्रक्रिया है। युवा पीढ़ी को उचित मार्गदर्शन न मिले उनमें अनुशासन का समावेश हो ताकि वे उज्ज्वल भविष्य एवं सफल जीवन की ओर अग्रसर हो सकें। ऐसा हमारा प्रयास है।

सर्वाधिक शिक्षा के क्षेत्र में पुस्तकालय की भूमिका महत्वपूर्ण बने इसके लिये छात्रों के अनुशासित वातावरण में पुस्तकालय का उपयोग भी आवश्यक है। छात्र/छात्राओं के अध्ययन में कोई भी कठिनाई हो उसे हल करने के लिये महाविद्यालय के प्राचार्य के नाते में अहर्निश कृत संकल्प रहूँगा।

मुझे पूर्ण विश्वास है कि शैक्षिक एवं रचनात्मक वातावरण के सृजन में आपका हार्दिक सहयोग लक्ष्य की ओर अग्रसर होने में प्रभावी सिद्ध होगा।

इसी संकल्प एवं शुभाकांक्षा के साथ।

डॉ. राजेन्द्र कुमार गुप्ता

महाविद्यालय की अनुशासन व्यवस्था



डॉ. रवीन्द्र कुमार द्विवेदी

मुख्य अनुशासन अधिकारी

विभागाध्यक्ष, शस्य विज्ञान विभाग

अनुशासन प्रगति व सम्मान के लिये मनुष्य के जीवन में बहुत आवश्यक है। कहा जाता है कि पक्का इरादा, दूरदृष्टि और अनुशासन ही देश को महान बनाता है। अनुशासन एक मूल मंत्र है जो आपको आगे बढ़ाता है। यह सत्य है कि अनुशासन के बिना घर, कॉलेज, प्रदेश व देश कोई प्रगति नहीं कर सकता। अनुशासित समाज ही इन सबको आगे बढ़ाने का कार्य करता है। अनुशासन सर्वप्रथम व्यक्ति को अपने ऊपर लगाना चाहिए। आज जवाबदेही कार्यों के प्रति लोगों को पसन्द नहीं लेकिन यह सत्य है कि जिनके जीवन में अनुशासन है तो वे निश्चित तौर पर बुलन्दियों को छूते हैं व्यक्ति अनुशासित तभी बन सकता है जब उसका अपने मन, तन, धन पर नियन्त्रण हो जाए और यह नियंत्रण संयम से आता है। संयम के बिना इन तीनों पर नियंत्रण नहीं किया जा सकता है।

उपर्युक्त विचारों एवं महापुरुषों के सिद्धान्तों का अनुकरण कर इस महाविद्यालय में भी छात्रों के अन्दर अच्छी अनुशासन व्यवस्था कायम करने के लिए अनेकों प्रयास किये जाते हैं। जैसे- महाविद्यालय द्वारा अनुशासन समिति का गठन जिसके द्वारा महाविद्यालय के अन्दर की जा रही गतिविधियों की निगरानी निरन्तर होती रहे और छात्र अनुशासित बने रहे। अनुशासन व्यवस्था को दुरुस्त रखने के लिए ही भारत की सर्वोच्च अदालत द्वारा रैगिंग पर प्रतिबन्ध लगाया गया है तथा प्रत्येक छात्र से महाविद्यालय में प्रवेश के समय छात्र एवं उसके अभिभावक से रैगिंग न करने के आशय पर शपथ पत्र लिया जाता है एवं महाविद्यालय स्तर पर रैगिंग की निगरानी हेतु एक रैगिंग कमेटी का भी गठन किया गया है जो छात्रों को रैगिंग करने से रोकती है व न मानने पर अनुशासनात्मक कार्यवाही भी करती है।

अन्त में महाविद्यालय में प्रवेश लेने वाले समस्त छात्र एवं छात्राओं से मेरी अपील है कि वे महाविद्यालय के पुस्तकालय, कक्षाओं एवं वृक्षों को व अन्य महाविद्यालय की सम्पत्तियों को किसी भी प्रकार की क्षति पहुँचाने का प्रयास न करें और अनुशासित होकर महाविद्यालय के अन्दर इस सरस्वती मन्दिर को साफ स्वच्छ रखते हुये शिक्षा का अध्ययन करें और अच्छे नागरिक बने तभी छात्रों का और राष्ट्र का विकास सम्भव होगा।*

राष्ट्रीय सेवा योजना



एस.के. गुप्ता

प्रवक्ता : कृषि कीट विज्ञान

विद्यार्थियों के लिये राष्ट्रीय सेवा योजना महात्मा गाँधी व स्वामी विवेकानन्द के विचारों से अनुप्राणित है। राष्ट्रीय सेवा योजना की शुरुआत गाँधी शताब्दी वर्ष 24 सितम्बर 1969 से की गई। राष्ट्रीय सेवा योजना पूरे भारत में इस समय लगभग 300 विश्वविद्यालयों में संचालित हैं और लगभग 32 लाख छात्र सक्रिय हैं।

राष्ट्रीय सेवा योजना का आदर्श वाक्य है कि मैं नहीं आप (.) अर्थात् सभी का कल्याण और सभी मनुष्यों में सहानुभूति रखे। तभी समाज और देश का कल्याण होगा। राष्ट्रीय सेवा योजना का मुख्य उद्देश्य सामुदायिक सेवा के माध्यम से विद्यार्थियों के व्यक्तित्व का विकास करना है।

राष्ट्रीय सेवा योजना की इकाई महाविद्यालय में विगत 16 वर्षों से अनवरत कार्यरत है। राष्ट्रीय सेवा योजना में दो प्रकार के कैम्प का आयोजन किया जाता है (1) सामान्य कैम्प (2) विशेष कैम्प। उपरोक्त दोनों कार्यक्रम में कुल 240 घण्टे कार्य प्रस्तावित है। सामान्य कार्यक्रम महाविद्यालय में विशेष शुभ अवसरों व महापुरुषों की जयन्ती पर वर्ष भर चलते रहते हैं। लेकिन विशेष कैम्प 7 दिवसीय गाँव में लगाया जाता है। जिसमें 50 छात्र गाँव में रहकर ग्रामीणों को कृषि सम्बन्धित व सामाजिक कुरीतियों के प्रति जागरूक करते हैं।

राष्ट्रीय सेवा योजना व्यक्तित्व के विकास के साथ कैरियर में भी विकास होता है। राष्ट्रीय सेवा योजना प्रमाण पत्र धारक को बी.एड. परीक्षा में 10-15 अंको का अधिकार दिया जाता है। तथा विभिन्न प्रतियोगी परीक्षा में वरीयता दी जाती है। उपरोक्त के अतिरिक्त उत्कृष्ट स्वयं सेवक को इ.गाँधी रा.से.यो. पुरस्कार (रु. 8000.00 नकद व प्रमाण पत्र) दिया जाता है। इसके अलावा राष्ट्रीय युवा पुरस्कार, राज्य पुरस्कार व गणतंत्र दिवस परेड में चयन का अवसर प्रदान करता है। राष्ट्रीय सेवा योजना में प्रवेश के फार्म व पंजीकरण जुलाई अगस्त में प्रारम्भ होता है। प्रति वर्ष 100-120 छात्रों का पंजीकरण किया जाता है।

एस.के. गुप्ता

प्रोग्राम ऑफीसर, एन.एस.एस.

शैक्षणिक भ्रमण कार्यक्रम



नरेन्द्र सिंह

समन्वयक : RAWE

नये सत्र के शुभारम्भ के अवसर पर महाविद्यालय परिवार के शिक्षक, शिक्षणेत्तर कर्मचारियों एवं छात्र-छात्राओं का हार्दिक अभिनन्दन करते हुये सुखमय एवं शान्तिमय जीवन शत-शत स्वर्णिम कामनायें अर्पित करता हूँ।

इसी क्रम में हिन्दुस्तान कृषि प्रधान देश होने के कारण कृषि में विशेष शिक्षा प्रदान करते हुये हमारा महाविद्यालय निरन्तर आज 23 वर्षों से लगातार उक्त दिशा में उत्तरोत्तर वृद्धि कर रहा है। आप अवगत हो कि भारतीय कृषि अनुसंधान परिषद नई दिल्ली के द्वारा प्रस्तावित कोर्स में बी.एस-सी. कृषि की शिक्षा 8 सेमेस्टर में पूरी होती है। इस प्रकार 2 सेमेस्टर एक शिक्षा सत्र यानि एक वर्ष में व पूरी बी.एस-सी. कृषि की उपाधि 4 वर्षों में पूरी होती है। इस प्रकार उक्त कोर्स में 8 वाँ सेमेस्टर RAWE (Rural Agricultural Work Experience) का होता है। जिसमें RAWE शैक्षिक भ्रमण का अनिवार्य कार्यक्रम रखा गया है। जिसके बिना छात्र का कोर्स अधूरा माना जायेगा।

इसलिये महाविद्यालय की तरफ से प्रत्येक वर्ष कृषि के नये संस्थानों कृषि विश्वविद्यालयों कृषि विज्ञान केन्द्रों में लगाने वाले कृषि मेलों एवं प्रदर्शनियों में छात्रों को तकनीकी ज्ञान से अवगत कराने के लिये भ्रमण का कार्यक्रम भी कोर्स के अन्तर्गत कराया जाता है। जिसमें महाविद्यालय के सम्बन्धित शिक्षक एवं विषय विशेषज्ञ के साथ में अच्छी जानकारी के लिये भी जाया जाता है।

इन्हीं शुभकामनाओं के साथ।

नरेन्द्र सिंह

प्रवक्ता, कृषि प्रसार

छात्रवृत्ति व्यवस्था



डॉ. राजेश सोनी

प्रवक्ता : कृषि अर्थशास्त्र

महाविद्यालय में उ.प्र. के अतिरिक्त कई अन्य प्रदेशों के छात्र/छात्रायें अध्ययनरत हैं। अन्य प्रदेशों से आये हुए छात्रों को अपने छात्रवृत्ति के आवेदन उनके मूल प्रदेश के सम्बन्धित विभाग के निर्देशानुसार अपने ही प्रदेश में आवेदन करना पड़ता है। तथा वह विभाग महाविद्यालय से उनके प्रवेश की पुष्टि कराते हुये उन्हें छात्रवृत्ति एवं छात्र से ली गयी शुल्क की भरपाई करता है। उत्तर प्रदेश के निवासी छात्र जो महाविद्यालय में अध्ययन के लिये आते हैं उन्हें उ.प्र. शासन के समाज कल्याण विभाग द्वारा निर्धारित वेबसाइट पर आनलाइन आवेदन करना होता है तथा ऑनलाइन आवेदन की हार्ड कॉपी को महाविद्यालय में प्रस्तुत करनी होती है जिसे महाविद्यालय द्वारा जिले के सम्बन्धित विभाग को प्रेषित किया जाता है और जिले द्वारा आवेदित छात्रों की सूचना शासन को प्रेषित की जाती है। जिसके उपरान्त शासन द्वारा छात्र के खाते में छात्रवृत्ति एवं शुल्क प्रतिपूर्ति की धनराशि सीधे उनके खाते में पहुँचा दी जाती है इस कार्य हेतु महाविद्यालय के द्वारा समय-समय पर निर्धारित तिथियों एवं दिशा निर्देशों की सूचनायें छात्रों को प्रदान करायी जाती रहती है। छात्रवृत्ति सम्बन्धित छात्रों के लिये जो पात्रता उ.प्र. सरकार द्वारा समय-समय पर निर्धारित की जाती है उससे भी छात्रों को महाविद्यालय द्वारा अवगत कराया जाता है। वर्तमान समय में सामान्य वर्ग के छात्रों के लिये छात्रवृत्ति की आय सीमा की पात्रता अधिकतम रु. 2.00 लाख प्रति वर्ष निर्धारित है अन्य पिछड़ा वर्ग के लिये यह सीमा रु. 2.00 लाख से कम प्रति वर्ष तथा अनुसूचित जाति एवं जनजाति के छात्रों के लिये आय सीमा 2.00 लाख से कम प्रति वर्ष निर्धारित है जो समय-समय पर उ.प्र. शासन द्वारा परिवर्तनशील है।

इस प्रकार उ.प्र. शासन की नीति के अनुसार छात्रों की 75 प्रतिशत उपस्थिति अनिवार्य की गयी है। महाविद्यालय का भी यह भरसक प्रयास रहता है कि किसी भी वर्ग का कोई भी छात्र धनाभाव के कारण शिक्षा प्राप्त करने से वंचित न रह जाए इसके लिये महाविद्यालय दृढ़ संकल्पित है।

डॉ. राजेश सोनी

प्रवक्ता : कृषि अर्थशास्त्र

नोडल अधिकारी : छात्रवृत्ति

महाविद्यालय की प्रबन्ध समिति

1. **श्रीमती निर्मला देवी** अध्यक्ष/प्रबन्धक
अध्यक्ष जिला पंचायत बाँदा
2. **श्रीमती आशा यादव** सदस्य
सदस्य जिला पंचायत बाँदा
3. **श्रीमती कैलसिया वर्मा** सदस्य
सदस्य जिला पंचायत बाँदा
4. **श्रीमती आशा वर्मा** सदस्य
सदस्य जिला पंचायत बाँदा, सदस्य (वार्ड नं. 28)
5. **श्रीमती विनीतिका द्विवेदी** सदस्य
सदस्य जिला पंचायत बाँदा
6. **श्रीमती मीना कुमारी** सदस्य
सदस्य जिला पंचायत बाँदा
7. **श्री सुधीर कुमार कुशवाहा** सदस्य
सदस्य जिला पंचायत बाँदा
8. **डॉ. राजेन्द्र कुमार गुप्ता** पदेन सदस्य
प्राचार्य जि.पं. कृषि महाविद्यालय बाँदा
9. **डॉ. रवीन्द्र कुमार द्विवेदी** पदेन सदस्य
शिक्षक प्रतिनिधि
10. **श्री रामनरेश गुप्ता** पदेन सदस्य
शिक्षणेत्तर कर्मचारी प्रतिनिधि





महाविद्यालय का पुस्तकालय



रामनरेश गुप्ता
पुस्तकालयाध्यक्ष

पुस्तकालय किसी भी संस्था की आत्मा कहलाती है जिस संस्था के पुस्तकालय में जितना अच्छा साहित्य का संकलन होता है। उतनी ही अच्छी वह संस्था कहलाती है। इसी उद्देश्य से महाविद्यालय के पुस्तकालय में कृषि साहित्य की लगभग 5000 पुस्तकों का संकलन है। इस संकलन में संदर्भ ग्रंथ, टेक्स्ट बुक के साथ-साथ देश के विभिन्न कृषि शोध संस्थानों के महत्वपूर्ण प्रकाशनों का भी संकलन है।

आज बुन्देलखण्ड में जितने भी शैक्षणिक संस्थाओं के पुस्तकालय हैं लगभग 90 प्रतिशत पुस्तकालयों में छात्रों को विण्डो सिस्टम से पुस्तकें प्रदान की जाती हैं जिसके कारण छात्रों को पुस्तकालय के संकलन की पूरी जानकारी ही प्राप्त नहीं हो पाती। इस महाविद्यालय के पुस्तकालय में पुस्तकों के चयन हेतु मुक्त प्रणाली अर्थात् छात्र स्वयं पुस्तको तक जाकर अपनी माँग के अनुरूप पुस्तक का चयन करता है ऐसी व्यवस्था पुस्तकों के निर्गत करने हेतु निर्धारित की गयी है।

महाविद्यालय के पुस्तकालय में उ.प्र. के समाज कल्याण विभाग के सहयोग से अनुसूचित जाति एवं जनजाति छात्रों के लिये एक पृथक बुक बैंक की स्थापना भी की गयी है, जिसमें मात्र अनुसूचित जाति व जनजाति के छात्रों को ही पुस्तकें निर्गत की जाती हैं। इसके अतिरिक्त महाविद्यालय पुस्तकालय में लगभग 50 छात्रों के बैठने की व्यवस्था के साथ एक वाचनालय कक्ष की भी व्यवस्था है जिसमें महाविद्यालय के छात्र किसी भी समय जाकर समाचार पत्रों एवं पत्रिकाओं का वाचन करते हैं।

महाविद्यालय के पुस्तकालय में उत्तर प्रदेश शासन के ही सहयोग से एक वृहद किसान पुस्तकालय की स्थापना भी की गयी है जिसमें जनपद के किसानों को कृषि साहित्य से अवगत कराने के लिये पुस्तकों का संकलन किया गया है। इस किसान पुस्तकालय से मात्र जनपद के किसानों को ही कृषि साहित्य का लाभ दिया जाता है, ताकि महाविद्यालय अपने मूल उद्देश्यों की पूर्ति कर सके।

इस महाविद्यालय का यह पुस्तकालय निरंतर संस्था के छात्रों एवं कृषि शिक्षा प्रेमियों को अत्याधुनिक कृषि साहित्य उपलब्ध कराने के लिये प्रयासरत रहता है।*

रामनरेश गुप्ता
पुस्तकालयाध्यक्ष

महाविद्यालय में प्रवेश के नियम

इस संस्थान में मात्र कृषि स्नातक (B.Sc. Ag.) पाठ्यक्रम संचालित है। बी.एस-सी. कृषि में प्रवेश हेतु बुन्देलखण्ड विश्वविद्यालय द्वारा विश्वविद्यालय स्तर पर सभी सम्बद्ध महाविद्यालयों में प्रवेश हेतु प्रवेश परीक्षा का आयोजन प्रत्येक वर्ष किया जाता है। प्रवेश परीक्षा में उत्तीर्ण परीक्षार्थियों को कौंसलिंग के माध्यम से वरीयता क्रम में महाविद्यालयों में प्रवेश का आवंटन किया जाता है। प्रत्येक महाविद्यालय में विश्वविद्यालय द्वारा प्रवेश के स्थान निर्धारित हैं। निर्धारित स्थानों में ही उ.प्र. शासन की आरक्षण नीति के आधार पर प्रवेश दिया जाता है। प्रवेश परीक्षा में सम्मिलित होने के लिए शैक्षिक अर्हता इण्टरमीडिएट (10+2) या समकक्ष परीक्षा में न्यूनतम 50 प्रतिशत अंको के साथ उत्तीर्ण होना प्रत्येक अभ्यर्थी के लिये आवश्यक है इसके साथ ही अनुसूचित जाति/अनुजनजाति के अभ्यर्थियों के लिये यह मानक 50 प्रतिशत के स्थान पर 45 प्रतिशत है। तथा 10+2 या समकक्ष परीक्षा कृषि विषय अथवा विज्ञान वर्ग के छात्रों को बायोलॉजी विषय के साथ उत्तीर्ण होना आवश्यक होता है।

महाविद्यालय में सीधे प्रवेश का कोई प्रावधान नहीं है परन्तु यदि किसी सत्र में प्रवेश परीक्षा एवं कौंसलिंग उपरान्त भी सीटें रिक्त रह जाती है तो रिक्त स्थानों पर कुलपति, बुन्देलखण्ड, विश्वविद्यालय की अनुमति से मेरिट के आधार पर छात्रों को प्रवेश प्रदान करते हुये निर्धारित सीटों को भरा जाता है।*



रेल्वे कन्सेशन

महाविद्यालय द्वारा विगत 20 वर्षों से बाहरी छात्रों को घर व अन्य पठन पाठन सम्बन्धित कार्यों के लिये आने व जाने के लिये रेल्वे द्वारा 50% की किराये पर रियायत प्रदान करता है तथा 25% की रियायत एस.सी. एस.टी. को प्रदान की जाती है।

महाविद्यालय का कृषि फार्म

जिला परिषद कृषि महाविद्यालय का 20 एकड़ का कृषि फार्म जो बाँदा-महोबा राष्ट्रीय राजमार्ग पर बाँदा शहर से 8 कि.मी. दूर ग्राम गोयरा के समीप स्थित है जिसमें महाविद्यालय के समस्त शैक्षणिक प्रायोगिक कार्य समय-समय पर सम्पन्न होते रहते हैं जिससे छात्र/छात्राएँ, शिक्षक एवं क्षेत्र के किसान लाभान्वित होते हैं।

कृषि फार्म को विस्तृत रूप से विकसित करने के लिये महाविद्यालय ने एक रूप रेखा तैयार किया है जिससे आने वाले समय में बाँदा क्षेत्र के समस्त किसानों, महाविद्यालय के छात्र/छात्राओं को विशेष तकनीकी की जानकारी दी जा सके।

कृषि महाविद्यालय-राष्ट्रीय कृषि अनुसंधान परिषद नई दिल्ली से प्रोजेक्ट अथवा कृषि विज्ञान केन्द्र खोलने की दिशा में प्रयासरत है। जिससे भविष्य में बाँदा क्षेत्र के किसानों की आर्थिक सामाजिक उन्नति में यह महाविद्यालय सहायक सिद्ध हो सके।*



महाविद्यालय के अध्यक्ष/प्रबन्धकों के कार्यकाल पर एक दृष्टि

1-	स्व. ठाकुर चन्द्रपाल सिंह	अध्यक्ष/प्रबन्धक	स्थापना काल से 22-05-1995 तक
2-	श्री कृष्ण कुमार भारतीय	अध्यक्ष/प्रबन्धक	22-05-1995 से 02-09-1997 तक
3-	श्री कामता प्रसाद शास्त्री	अध्यक्ष/प्रबन्धक	03-09-1997 से 30-12-1997 तक
4-	ठा. जगराम सिंह चौहान	अध्यक्ष/प्रबन्धक	03-12-1997 से 15-07-2000 तक
5-	श्रीमती कृष्णा सिंह पटेल	अध्यक्ष/प्रबन्धक	14-08-2000 से
6-	श्रीमती दीपा सिंह गौर, श्रीमती सुनीता यादव, श्री रमेशचन्द्र कुरील		संचालन समिति
7-	श्रीमती कृष्णा सिंह पटेल	अध्यक्ष/प्रबन्धक	17-07-2005 से 09-10-2005 तक
8-	श्री सौरभ बाबू, आई.ए.एस.	प्रशासक	10-10-2005 से 13-01-2006 तक
9-	स्व. ठा. कुशजध्वज सिंह	अध्यक्ष/प्रबन्धक	14-01-2006 से 30-09-2007 तक
10-	श्रीमती राजनदेवी, श्रीमती राजरानी, - श्री महेन्द्र सिंह वर्मा		संचालन समिति 01-10-2007 से 12-09-2008 तक
11-	श्री शकील अली	अध्यक्ष/प्रबन्धक	13-09-2008 से 13-01-2011 तक
12-	श्रीमती किरण वर्मा	अध्यक्ष/प्रबन्धक	14-09-2011 से
13-	श्रीमती ममता, श्रीमती शान्ती देवी, - श्री महेन्द्र सिंह वर्मा		संचालन समिति 27-06-2012 से
14-	श्री महेन्द्र सिंह वर्मा	अध्यक्ष/प्रबन्धक	28-01-2013 से
15-	श्रीमती आराधना, श्रीमती इशरत, - श्रीमती आशावर्मा		संचालन समिति 10-10-2014 से 10-12-2014 तक
16-	श्री बलदेव प्रसाद वर्मा	अध्यक्ष/प्रबन्धक	21-12-2014 से 13-01-2016 तक
17-	श्रीमती निर्मला सिंह	अध्यक्ष/प्रबन्धक	14-01-2016 से

जिला परिषद कृषि महाविद्यालय, बाँदा

शिक्षक/कर्मचारियों की सूची

क्रम सं.	कर्मचारी का नाम	पद
1-	डॉ. राजेन्द्र कुमार गुप्ता	प्राचार्य
2-	श्री नरेन्द्र कुमार सिंह	प्रवक्ता, कृषि प्रसार
3-	श्री शिव कुमार गुप्ता	प्रवक्ता, कीट विज्ञान
4-	डॉ. शिवराम सिंह	प्रवक्ता, उद्यान विज्ञान
5-	डॉ. रामसागर गुप्ता	प्रवक्ता, वनस्पति विज्ञान
6-	डॉ. रवीन्द्र कुमार द्विवेदी	प्रवक्ता, शस्य विज्ञान
7-	डॉ. अरविन्द कुमार मिश्रा	प्रवक्ता, मृदा रसायन
8-	डॉ. राजेश कुमार	प्रवक्ता, कृषि अर्थशास्त्र
9-	डॉ. अवधेश कुमार संत	प्रवक्ता, पादप रोग विज्ञान
10-	श्री रामनरेश गुप्ता	पुस्तकालय अध्यक्ष
11-	श्री शशिभूषण गुप्ता	कार्यालय लिपिक
12-	श्री रामनिवाज सिंह	स्थापना लिपिक
13-	श्री शैलेन्द्र कुमार अवस्थी	प्रयोगशाला सहायक
14-	श्री अवधेश कुमार पटेल	प्रयोगशाला सहायक
15-	श्री राजेन्द्र प्रसाद त्रिपाठी	प्रयोगशाला सहायक
16-	श्री राजू सिंह	पुस्तकालय लिपिक
17-	श्री लक्ष्मण सिंह	पुस्तकालय लिपिक
18-	श्री मइयादीन	कार्यालय परिचर
19-	श्री रामबाबू पाल	चौकीदार
20-	श्री रामगुलाम	पुस्तकालय परिचर
21-	श्री बोधन	प्रयोगशाला परिचर
22-	श्री रामखेलावन	प्रयोगशाला परिचर
23-	श्री संतोष कुमार गुप्ता	प्रयोगशाला परिचर
24-	श्री कामता प्रसाद	वाटर मैन
25-	श्री बाबूलाल कुशवाहा	प्रयोगशाला परिचर
26-	श्री कमाल अहमद	चौकीदार
27-	श्री हसीब अनवर खाँ	माली
28-	श्री योगेश कुमार	माली
29-	मो. आकिल अहमद	माली
30-	श्री रहमान	चौकीदार
31-	श्री रमेश	स्वीपर

महाविद्यालय के छात्र/छात्राओं की वेशभूषा

महाविद्यालय में पढ़ने वाले प्रत्येक छात्र/छात्राओं के लिए ड्रेस निर्धारित की गयी है। छात्रों के लिए सफेद शर्ट, ग्रे रंग का फुल पैण्ट एवं काले रंग जूते, सफेद मोजे तथा छात्राओं के लिए सफेद रंग का पायजामा एवं ग्रे रंग का कुर्ता व काली जूती, सफेद मोजे निर्धारित है।

अतः समस्त छात्रों एवं छात्राओं से यह अपील की जाती है कि वे निर्धारित ड्रेस पहनकर ही महाविद्यालय में आवें, साथ ही अपना परिचय पत्र साथ में लावें ताकि महाविद्यालय के छात्रों की अपनी अलग पहचान बनी रहे।



परिसर : जिला परिषद कृषि महाविद्यालय, बाँदा

महाविद्यालय के २३वें स्थापना दिवस समारोह की झलकियाँ



कार्यक्रम मंच की ओर जाती हुयी श्रीमती कमला सिंह पत्नी स्व. ठा. चन्द्रपाल सिंह



ठा. चन्द्रपाल सिंह की मूर्ति अनावरण स्थल की ओर जाती हुयी श्रीमती कमला सिंह व अध्यक्ष श्रीमती निर्मला सिंह



श्रीमती कमला सिंह का मंच पर स्वागत करते मा. जमुना प्रसाद बोस, पूर्व राज्य मंत्री



कार्यक्रम का संचालन करते महाविद्यालय के पुस्तकालयाध्यक्ष श्री रामनरेश गुप्ता



समारोह में उपस्थित महाविद्यालय के छात्र व छात्रायें



समारोह में उपस्थित महाविद्यालय के छात्र व छात्रायें



माँ सरस्वती के समक्ष दीप प्रज्ज्वलित करतीं
मा. अध्यक्षा श्रीमती निर्मला सिंह



समारोह मंच पर स्वागतगीत प्रस्तुत करतीं
महाविद्यालय की छात्रायें



स्व. कुशजध्वज सिंह की प्रतिमा पर माल्यार्पण करते
हुये मा. जमुनाप्रसाद बोस, पूर्व राज्य मंत्री, उ.प्र.



स्व. कुशजध्वज सिंह की प्रतिमा पर पुष्प भेंट करने
महाविद्यालय के प्राचार्य डॉ. आर.के. गुप्ता



ठा. चन्द्रपाल सिंह की प्रतिमा का अनावरण करने
जाते हुये मा. जमुनाप्रसाद बोस व अन्य अतिथि



स्व. कुशजध्वज सिंह की प्रतिमा पर पुष्प भेंट करतीं
श्रीमती कमला सिंह, पत्नी ठा. चन्द्रपाल सिंह



ठा. चन्द्रपाल सिंह की प्रतिमा का अनावरण स्थल



ठा. चन्द्रपाल सिंह की प्रतिमा पर माल्यार्पण करते हुये श्री लाखन सिंह व श्री बाबू सिंह



ठा. चन्द्रपाल सिंह की प्रतिमा पर पुष्प अर्पित करती श्रीमती निर्मला सिंह व अन्य अतिथि गण



ठा. चन्द्रपाल सिंह की प्रतिमा पर पुष्प भेंट करती उनकी धर्मपत्नी श्रीमती कमला सिंह



ठा. चन्द्रपाल सिंह की प्रतिमा अनावरण स्थल पर उपस्थित विशिष्ट आगन्तुक



समारोह में उपस्थित आगन्तुक बन्धु



डॉ. कमलेश शर्मा, सहा. कुल सचिव, बु.वि.वि.
का स्वागत करते श्री लाखन सिंह



मा. जमुनाप्रसाद बोस, पू.राज्य मंत्री, उ.प्र. का
मंच पर स्वागत करते श्री लाखन सिंह



पूर्व अध्यक्ष ठा. जगराम सिंह जी का स्वागत करते
डॉ. रवीन्द्र कुमार द्विवेदी



अध्यक्ष श्रीमती निर्मला सिंह का स्वागत करते
महाविद्यालय के प्राचार्य डॉ. आर.के. गुप्ता



स्व. कुशजध्वज सिंह की प्रतिमा पर पुष्प भेंट करते
सपा जिलाध्यक्ष मा. शमीम बादवी



मुख्य विकास अधिकारी का सम्मान करते
महाविद्यालय के प्राचार्य डॉ. आर.के. गुप्ता



श्री सीरजध्वज सिंह का स्वागत करते
लिपिक शशि भूषण गुप्ता



श्री दलपत सिंह जी का स्वागत करते
महाविद्यालय के छात्र



श्रीमती कमला सिंह पत्नी स्व. ठा. चन्द्रपाल सिंह
का स्वागत करते महाविद्यालय के प्राचार्य
डॉ. आर.के. गुप्ता



बाँदा सी.डी.ओ. का बैज अलंकरण करती
महाविद्यालय की छात्रा



बबेरू विधायक श्री विश्वम्भर यादव का स्वागत करते
प्रवक्ता श्री नरेन्द्र कुमार सिंह



पूर्व अध्यक्ष श्री शकील अली जी का स्वागत करते
महाविद्यालय के प्रवक्ता डॉ. ए.के. मिश्रा



समारोह को सम्बोधित करते महाविद्यालय के प्राचार्य
डॉ. आर.के. गुप्ता



समारोह को सम्बोधित करते
मुख्य विकास अधिकारी, बाँदा



समारोह को सम्बोधित करते
मा. विश्वम्भर सिंह यादव, विधायक, बबेरू



समारोह को सम्बोधित करते अध्यक्ष प्रतिनिधि
श्री लाखन सिंह



समारोह को सम्बोधित करते डॉ. कमलेश शर्मा
बुन्देलखण्ड विश्वविद्यालय, झाँसी



मंचासीन अतिथिगण



समारोह को सम्बोधित करते
मा. जमुना प्रसाद बोस, पूर्व राज्यमंत्री, उ.प्र. सरकार



अध्यक्ष प्रतिनिधि श्री लाखन सिंह जी का माल्यार्पण
कर स्वागत करते प्राचार्य डॉ. आर.के. गुप्ता



डॉ. कमलेश शर्मा जी को शाल भेंट कर
सम्मानित करते श्री लाखन सिंह



डॉ. किरण शर्मा, प्रो. बु.वि.वि. झाँसी
का स्वागत करते श्री लाखन सिंह



मंचासीन अतिथि डॉ. रामभरत सिंह तोमर व
डॉ. किरण शर्मा एवं श्री रामनरेश गुप्ता



मा. अध्यक्षा श्रीमती निर्मला सिंह को शाल भेंट कर
सम्मानित करते श्री लाखन सिंह

महाविद्यालय की विभिन्न गतिविधियों में लिप्त छात्र/छात्रायें



छात्रों को प्रायोगिक कार्य के लिए लेआउट देते महाविद्यालय के प्राचार्य एवं शिक्षक



श्री लाखन सिंह महाविद्यालय के स्टाफ को शैक्षणिक भ्रमण में जाने के पूर्व निर्देश देते हुये



राष्ट्रीय सेवा योजना शिविर समापन समारोह में उपस्थिति महाविद्यालय के शिक्षक एवं अतिथि



श्री लाखन सिंह महाविद्यालय के छात्रों को शैक्षणिक भ्रमण हेतु विदाई करते हुये

BUNDELKHAND UNIVERSITY JHANSI

ORDINANCE

B.Sc. (Agriculture) Hons.

This ordinance and regulations will be governing B.Sc. (Ag) Hons. degree programme In Semester system in the Bundelkhand University. The ordinance has been grouped into following parts:

1. Academic year and fees
2. Admission and course requirement for B. Sc. (Ag.) Hons.
3. Evaluation of courses of UG
4. Course curricula and syllabus

1. Academic year and fees

Academic year will be divided into two semester having duration of approximately 20 weeks each. Students will pay fees as prescribed-by the Bundelkhand University / Colleges for B.Sc. (Ag.). at the time of admission.

2. Admission and course requirement

2.1 Procedure for admission

Admission to the first year of B. Sc. (Ag.) Hons, course'will be made strictly on the basis of merit obtained by candidate In a competitive examination called combined entrance test (ET) to be conducted by the Bundelkhand University on the date and centres announced from time to time under the supervision of the Dean (Faculty of Agriculture).

2.2 Eligibility of admission

The entrance examination will be opened to Indian Citizen and NRI's. A candidate will be eligible to appear in the combined entrance test, if he/she is physically fit and had passed/ appeared in the qualifying examination i.e. Intermediate examination (10+2) in Agriculture or Science (Bio group only), should have obtained minimum second division in the qualifying examination and has not crossed 21 years of age on July 1st of that academic year. The candidates selected by ET will be allowed to take admission only after producing the mark sheet of the qualifying examination.

2.3 Merit list for admission

Candidate will be selected for admission on the basis of merit secured in the combined entrance test conducted by the University. In'case of equal marks in the entrance test, the rank of candidates will be decided on the following basis:

- (i) The percentage of marks obtained in the qualifying exam i.e. Intermediate.
- (ii) If percentage of marks obtained in qualifying examination happens to be equal, the percentage of marks obtained in high school will be considered for deciding the merit.
- (iii) If the percentage to marks in high school is also same, the candidate senior in age would rank higher.

2.4 Number of seats

Total number of seats available for admission to B. Sc. (Ag.) Hons. will be as sanctioned by the state Government of Uttar Pradesh/Bundelkhand University, Jhansi in each affiliated colleges / Institute. Out of total seats, 27% and 23% are reserved for OBC and SC/

ST candidates, respectively. 20% seats are reserved for women, in all categories. Quota for staff wards and students from other states of India should be stipulated on the basis of the decision of the Hon'ble Vice Chancellor.

2.5 Cancellation of admission

The admission of student is liable to be cancelled on the occurrence of any of the following.

- (i) If, he/ she fails to attend classes and remain absent regularly for 30 day or more without permission of the head of the Institutions / Colleges.
- (ii) On an act of indiscipline as per rules of the University.

2.6 Course period

Minimum period required for completion of B. Sc. (Ag.) Hons. will be eight semesters, extending to a maximum of 12 consecutive semesters. The duration of semester will be 20 weeks with at least 105 instruction days and each academic year would consist of .two semesters.

2.7 Course requirement for B. Sc. (Ag.) Hons.

The courses prescribed by the Faculty of Agriculture meeting held on February 07, 2013 and March 19, 20.13 are to be followed in order to qualify B. Sc. (Ag.) Hons. degree. Student will be required to complete the compulsory course programme.

3. Evaluation of the course

3.1 Examination

The student's achievements will be evaluated on the basis of their performance in different tests in the form of written and practical examinations. System of evaluation of different courses approved by the Board of Studies recommendation of UGC/ ICAR, which is mandatory to be followed, is as follows:

S. No.	Marks distribution	Mode of Exam	Min. Passing Marks
i)	20 Marks Mid-Term	Internal	Not less than 33% (7.0 marks)
ii)	30 Marks Practical	External	Not less than 33% (10.0 marks)
iii)	50 Marks Theory Final	External	Not less than 50% (17.0 marks)

Note: Total minimum passing marks will be 40 out of 100 (Not less than 40%) The Mid-Term examination will be of 1.0 hrs. duration and will generally cover about 50% of the total course. The Mid-Term examination will be conducted by the internal examiner, while the practical examination will be conducted by the external examiner. The final examination will cover entire course of theory and practical and will be external in nature.

3.2.1 Absence from the examination

The candidate who fails to appear in any of the examination will be marked absent in the examination.

3.3 Repeat of the examination.

A repeat of examination will be held with next batch examination in odd and even semester.

3.4 Minimum Passing marks

The minimum passing marks for passing an academic year will be 40% for B.Sc. (Ag.) Hons.. Candidates will be required to pass separately in the all parts of the written examinations and practical examinations of each subject. A student who maintains or fails to maintain the minimum passing marks at the end of first semester of the academic year will be promoted to the second semester of that academic year, if he passes in 50%, of the total papers of that semester.

However, candidate will be required to pass at least 50% course in both semesters in one academic year to be promoted to the next year.

3.5 Dropping of semester

Under exceptional condition a student with the prior permission of the Registrar may be allowed to drop a semester. The application to the Registrar for approval must be moved through the Principal of the Institution / college. However, student will not be allowed to drop the semesters of the first academic year.

3.6 Readmission of failed students

B.Sc. (Ag.) Hons. student will be readmitted in the same semester of the academic year where studied and failed. He/ She will be allowed to complete the degree programme within 4 semesters over and above the minimum prescribed residential period counted from the date of his/her first admission,

3.7 Re-admission of retained students.

Students who has failed to maintain minimum prescribed passing criteria or has been detained from appearing in the examination due to shortage of attendance may be readmitted on application, If otherwise eligible. A student can be readmitted once only in the same class. If readmitted student falls again at the end of the academic year in the main as well as in the repeat examination, he/ she will be removed from the roll of the College / University.

3.8 Back paper

The number of back paper allowed in any one semester should not be more than four. If a candidate has more than four back papers in one semester, he / she have to wait for next academic year for clearance of those extra back papers. In that case the extension of his tenure should also be within the 12 consecutive semesters as mentioned in clause number 2.6.

3.9 Special Back Paper

The examination for special back paper will be arranged in the end of final (VIIIth) semester examination. However, the maximum number of back papers in VIIIth semester should not be more than six. Student failing in VIIIth semester special back paper examination and those with back paper load more than the limit of six back paper as mentioned above should take admission in following regular academic year as soon as in respective semesters to pass the back paper examinations, that also within the consecutive 12 semester limit mentioned in clause number 2.6.

- Note-1) All the provisions of this ordinance mentioned from clause number 1 to 3.9 are deemed to be implemented from July, 2012 onwards.
- 2) All the provisions of this ordinance mentioned from clause number 1 to 3.9 have been implemented with the approval of Hon'ble Vice Chancellor, Bundelkhand University, Jhansi.

Marks Distribution of All Semester in Departmental Subject

B. Sc. (Ag.) Hons.

Semester- I

S. N.	Department	Paper title	Credit Hours	Marks Distribution Marks			Total
				M	T	P	
1	Agronomy	Principles of Agronomy	2+1=3	20	50	30	100
2	Soil Science & Agricultural Chemistry	Fundamentals of Soil Science	2+1=3	20	50	30	100
3	Genetics & Plant Breeding	Elements of Genetics	2+1=3	20	50	30	100
4	Horticulture	Fundamentals of Horticulture	2+1=3	20	50	30	100
5	Soil & Water Conservation	Agricultural Meteorology	2+1=3	20	50	30	100
6	Agricultural Extension	Rural Sociology & Educational Psychology	2+1=3	20	50	30	100
7	Agricultural Statistics	Statistics & Applied Mathematics	2+1=3	20	50	30	100
8	English	Structural & Spoken English	1+0=1	—	50	—	60
9	Physical Education	Physical Education	0+1=1	—	—	50	50

B. Sc. (Ag) Hons.

Semester- II

S. N.	Department	Paper title	Credit Hours	Marks Distribution Marks			Total
				M	T	P	
1	Agricultural Economics	Natural Resources & Farm Management	2+1=3	20	50	30	100
2	Soil Science & Agricultural Chemistry	Elementary Plant Biochemistry	2+1=3	20	50	30	100
3	Agricultural Engineering	Irrigation & Water Management	2+1=3	20	50	30	10
4	Agricultural Extension	Extension Education & rural Development	2+1=3	20	50	30	100
5	Genetics & Plant Breeding	Elementary Crop Physiology	2+1=3	20	50	30	100
6	Plant Pathology	Elementary Microbiology	2+1=3	20	50	30	100
7	Entomology	Introductory Entomology	2+1=3	20	50	30	100
8	Agricultural Statistics	Computer Application in Agriculture	2+1=3	20	50	30	100

B. Sc. (Ag.) Hons.**Semester-III**

S. N.	Department	Paper title	Credit Total	Marks Distribution Marks			Total
	Hours			M	T	P	
1	Agronomy	Field Crop-1	2+1=3	20	50	30	100
2	Genetics & Plant Breeding	Principles of Plant Breeding	2+1=3	20	50	30	100
3	Horticulture	Vegetable Crops Production	2+1=3	20	50	30	100
4	Soil & Water Conservation	Principles & Methods of Soil and Water conservation	2+1=3	20	50	30	100
5	Agricultural Engineering	Farm Machinery & Power	2+1=3	20	50	30	100
6	Agricultural Economics	Agricultural Marketing and Co-operation	2+1=3	20	50	30	100
7	Plant Pathology Introductory	Plant Pathology	2+1=3	20	50	30	100

B. Sc. (Ag.) Hons.**Semester-IV**

S. N.	Department	Paper title	Credit Marks	Marks Distribution			Total
	Hours			M	T	P	
1	Agronomy	Field Crop- II	2+1=3	20	50	30	100
2	Genetics & Plant Breeding	Breeding of Field Crops	2+1=3	20	50	30	100
3	Horticulture	Fruit & Plantation Crops Production .	2+1=3	20	50	30	100
4	Entomology	Principles and Methods of Insect Pest Management	2+1=3	20	50	30	100
5	Animal Husbandry & Dairying	Livestock Production & Management (Including Poultry)	2+1=3	20	50	30	100
6	Animal Husbandry & Dairying	Health & Diseases Management of Livestock (Including Poultry)	2+1=3	20	50	30	100
7	Soil & Water Conservation	Silviculture & Agro-Social forestry	2+1=3	20	50	30	100

B. Sc. (Ag.) Hons.**Semester- V**

S. N.	Department	Paper title	Credit Hours	Marks Distribution Marks			Total
				M	T	P	
1	Agronomy	Weeds & Weed Management	2+1=3	20	50	30	100
2	Genetics & Plant Breeding	Introductory Plant Biotechnology	2+1=3	20	50	30	100
3	Horticulture	Production Technology of Spices, Medicinal and Aromatic Plants	2+1=3	20	50	30	100
4	Animal Husbandry & Dairying	Dairy Chemistry & Animal Nutrition	2+1=3	20	50	30	100
5	Soil Science & Agricultura Chemistry	Soil Fertility & Nutrients Management	2+1=3	20	50	30	100
6	Entomology	Economic Entomology	2+1=3	20	50	30	100
7	Plant Pathology	Crop Diseases	2+1=3	20	50	30	100

B. Sc. (Ag.) Hons.**Semester- VI**

S. N.	Department	Paper title	Credit Hours	Marks Distribution Marks			Total
				M	T	P	
1	Agronomy	Farming Systems & Sustainable Agriculture	2+1=3	20	50	30	100
2	Genetics & Plant Breeding	Principles of Seed Technology	2+1=3	20	50	30	100
3	Horticulture	Ornamental Horticulture	2+1=3	20	50	30	100
4	Agricultural Eeonomlcs	Agricultural Finance & Business Management	2+1=3	20	50	30	100
5	Animal Husbandry & Dairying	Milk Processing	2+1=3	20	50	30	100
6	Agricultural Engineering	Post-harvestAgricltural Engineering	2+1=3	20	50	30	100
7	Plant Pathology	Elementary Nematology & Mushroom Cultivation	2+1=3	20	50	30	100

S. N.	Department / Subjects	Marks distribution & evaluation				
		Credit Hours	Comprehensive Exam		***RAWE (Field Practical) (Internal) (P)	Total
			*Comprehensive (Mid Term) Internal (M)	**Comprehensive (Objective Type) External exam conducted by University (T)		
1	Agronomy	0+1	20	50	30	100
2	Genetics & Plant Breeding	0+1	20	50	30	100
3	Horticulture	0+1	20	50	30	100
4	Soil Science & Agril. Chemistry	0+1	20	50	30	100
5	Soil and Water conservation	0+1	20	50	30	100
6	Agricultural Engineering	0+1	20	50	30	100
7	Plant Pathology	0+1	20	50	30	100
8	Entomology	0+1	20	50	30	100
9	Animal Husbandry & Dairying	0+1	20	50	30	100
10	Agricultural Extension	0+1	20	50	30	100
11	Agricultural Economics	0+1	20	50	30	100
12	Agricultural Statistics	0+1	20	50	30	100
	TOTAL	00+12 (12)	240	600	360	1200

Minimum Passing requirement

Note : The passing marks shall be
40% out of total marks at each stage
of examination including that there
will be no minimum passing marks
for individual subject at each state
of Examination provided."

(336)

(144)

(480)

(***RAWE : Rural Agricultural Work Experience)

RULES AND REGULATIONS OF B.Sc. (Ag.) VIII Semester

Comprehensive Exam :

It will be based on all courses of study during the degree programme (Ist to VIIIth Semester) to test the understanding of students in the area of agriculture as a whole before completion of programme..

(I) *Comprehensive (Internal): The exam shall be conducted by internals at college / institution level and equivalent to Mid Term examination. The marks obtained in mid- term will be combine with marks obtained in ****Comprehensive (external).**

**** Comprehensive (external) :**

The exam shall be conducted as single paper (OMR format) by B.U. Jhansi at the end of semester. The exam paper would contains 240 multiple answer type questions (20 questions from each section) of 2½ marks each. It will be 3hr. examination conducted on OMR sheet.

***** RAWE (Field Practical) :**

It focus on experience for students related to different Agricultural and allied activities of farmers, gaining rural experience, developing problem solving activities, acquisition of skill for entrepreneurship and self employment. For this purpose subject wise RAWE schedule for collection of data and recording experiences as well as final report writing is necessary in the form of practical record. There will be an Advisory Committee for successful operation of RAWE programme.

The Advisory committee will have following members :

1. **Chairperson, (Principal of the College/Director of Institution)**
2. **Programme Coordinator' (Appointed by chairperson among the Faculty of Agriculture in rotation.**
3. **Programme Officers (At least one teacher as member from each subject of specialization).**
4. **One Honorary Officer Representative from State Department of Agriculture and allied department.**

The Advisory Committee will be responsible for formulating the RAWE programme for students and its implementations. The performance of the students will be evaluated by different Programme Officers of advisory committee in coordination of Programme coordinator. The final report of the programme has to submit to the Chairperson of the advisory committee.

Model of RAWE programme: Duration (20 Week programme)

- ☐ Student's Orientation cum Refresher **(2 weeks).**
- ☐ Village attachments **(15 weeks)** focus on different Agricultural farm's activities, knowing socio-economic status of farmers, rural -work experience, to developed problem solving behavior & abilities, acquisition, of skill for entrepreneurship and self employment.
- ☐ Visit of apex Agricultural institutions, meeting with successful farmers and their agricultural modules and Agro-based industries to see their activities (2 weeks).
- ☐ RAWE report preparation and evaluation (1 week).

SYLLABUS OF B.SC (AG.) HONS.
(SEMESTER SYSTEM)

ALL SUBJECTS
Semester I

	Course	
Semester-I	PRINCIPLES OF AGRONOMY	2+1=3

1. Definition and scope of Agronomy.
2. Classification of Crops on different basis.
3. General principles of Crop production: Climate, soil, soil preparation, seed and sowing, post sowing-tillage, water management, nutrient management, plant protection measures, harvesting, threshing and storage.
4. Crop sequences and systems with special emphasis on mixed and inter-cropping.
5. Nutritional management of crops including application of manures, fertilizers and bio-fertilizers.

Practical

1. Study of weather and weather forecasting.
2. Identification of crops, manures and fertilizers.
3. Framing of crop rotations and preparation of cropping schemes for varying agroclimatic conditions.
4. Preparation of seed bed based on important inter-cropping systems.
5. Calculation of fertilizer requirement, fertilizer mixtures and unit values.
6. Methods of fertilizer application.
7. Framing of crop rotations and cropping intensity.
8. Preparation of practical record.

	Course	
Semester-I	FUNDAMENTALS OF SOIL SCIENCE	2+1=3

1. Soil: Pedological and Edaphological concept and components of soil.
2. Important soil forming minerals and rocks, weathering of rocks, and minerals. Soil forming factors and processes.
3. Development of soil profile.
4. Physical properties of soil and their significance.
5. Chemical properties of soil, cation and anion exchange phenomenon and their importance in agriculture.
6. Soil air: Definition, composition and factors affecting the composition of soil air.
7. Soil water: Retention, potential, soil moisture constant, movement of soil water.
8. Soil colloids-Nature, structure, properties, types, chemical composition and their Importance.
9. Soils reaction - Factors controlling of soil pH and influence of soil reaction on availability of nutrients.
10. Soil organic matter - composition and their maintenance in soil, humus formation and its importance in soil fertility management.
11. Biofertilizers: Definition, types and their potential, nitrogen fixing bacteria, symbiotic

and non symbiotic nitrogen fixation, nutrient solublizing bacteria, merits of biofertilizers.

12. Important soil types of India with special reference to the U.P. soil.

Practical:

1. Analytical chemistry : Basic concepts, techniques and calculation.
2. Collection and processing of soil sample for analysis of organic carbon.soil pH and electrical conductivity
3. Preparation of HCl extract of soil.
4. Determination of Iron oxide sesquioxide, Ca, and Pin HCl extract of soil.
5. Estimation of CO₃⁼ and HCOg in irrigation water.
6. Study of soil profile and identification of rocks and minerals.

Semester-I	Course ELEMENTS OF GENETICS	2+1=3
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1. Definition, significance and historical development in genetics.
2. Mendel's Law's of heredity.
3. Chromosomal theory of inheritance, meiosis and mitosis.
4. Linkage and crossing over - types, mechanism and significance,
5. Nucleic acid as genetic material - structure, replication, genetic code.and translation.
6. Mutation-spontaneous and induced.
7. Chromosomal changes-molecular, structural and numerical.
8. Multiple factor inheritance and multiple alleles, blood groups in man and body coat colour in rabbits.
9. Sex chromosomes and its determination in man and droisophila, sex linked characters.
10. Cytoplasmic inheritance - plasma and nuclear, gene interaction.

Practical

1. Preparation of temporary cytological slides (mitosis and meiosis)
2. Genetical problems on mono and dihybrid ratios with their modifications.
3. Chi-square test and goodness of fit of Mendelian modified ratios.
4. Preparation of practical record.

Semester-I	Course FUNDAMENTALS OF HORTICULTURE	2+1=3
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1. Introductory knowledge of main branches of horticulture and their importance.
2. Botanical classification of fruits.
3. Climatic fruit zones of UttarPradesh and fruits grown therein.
4. Establishment of orchards; Selection of site, systems of planting.
5. Orchard soil management.
6. Systems of irrigation.
7. Principles of pruning and systems of training of fruit plants.
8. Unfruitfulness - its causes and measures to overcome it.
9. Fruit drop - its causes and measures to control it.
10. Rejuvenation of orchards.
11. Brief studies of Polyembryony, Parthenocarpy and incompatibility.

Practical

1. Identification of garden tools and plants.

2. Preparation of orchard layouts for different climatic zone of U.P..
3. Practice of propagation of major fruit plants.
4. Preparation of seed beds and raising of seedlings.
5. Practice of lifting and packing of nursery plants.
6. Visit to nurseries, gardens and research stations.
7. Preparation of practical record.

	Course	
Semester I	AGRICULTURAL METEOROLOGY	2+1=3

1. Different meteorological variables related to agriculture.
2. Rainfall- Hydrological cycle and its components. Types and form of precipitation, Storms occurrence, variation and measurement of rainfall. Rain gauge, computation and analysis of data. Plotting of mass curve and rainfall intensity curve.
3. Run-off-Definition types, factors affecting, estimation and measurement.
4. Atmosphere- Definition and structure, climate and weather, atmospheric pressure, factors affecting and measurement.
5. Elementary idea of Insolation, Temperature - kinds, measuring Instruments of temperature and evaporation. Factors affecting and measurement of temperature and evaporation.
6. Humidity, definition, kind and Importance.
7. Agro Climatic Zones In India.
8. Elementary Idea of weather forecasting.

Practical

1. Computation of average rainfall. Plotting Bargraph for rainfall data and Rainfall Intensity curve.
2. Measurement of rainfall, Atmospheric pressure, relative humidity and evaporation,
3. Plotting line graphs for Illustrating climatic factors such as temperature,
4. MassCurve.
5. Maintenance of practical record.

	Course	
Semester I	RURAL SOCIOLOGY AND EDUCATIONAL PSYCHOLOGY	2+1=3

(A) Rural Sociology

1. Definition and scope of rural sociology.
2. Basic concept of society, community and groups
3. Characteristics and Differences of rural and urban communities
4. Basic rural Institutions and their role In Agriculture development,
5. Definition and types of rural leadership and their role In social /rural change
6. Socio-economic problems of rural India.

(B) Educational psychology

1. Definition, nature and importance of psychology in the development of human behaviour.
2. Meaning of habit and habit development.
3. Basic Psychological concepts; motivation, Social Interaction, Attitudes, Emotions, Prejudices and Social Perception.

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4. Personality- definition, development and factors affecting them.

Practical

1. Socio-economic survey of village communities.
2. Developing schedules and questionnaires.
3. Visit and gaining of Practical knowledge about the working of basic rural institutions.
4. Identification of important value systems in the rural setting as a means of social control.
5. Identification of rural personality traits that affect the development of personality in rural situation.
6. Preparation of practical record.

Course

Semester-I

STATISTICS AND APPLIED MATHEMATICS

2+1=3

STATISTICS

Definition, Aims, Characteristics and Limitations of statistics Clarification and Tabulation of data.

Definition, advantages and disadvantages of Arithmetic Mean, Median. Mode. Geometric Mean, Harmonic Mean and Weighted Mean as measures of central tendency; Range, Quartile Deviation, Mean Deviation, Variance, Standard Deviation and Coefficient of variation as measures of dispersion.

Definition of probability, Additive and Multiplicative Law of probability and simple problem based on them,

Definition, merits and demerits of complete enumeration and sample survey, types of data, need for sampling, sampling and Non-sampling errors, concept of standard error, concepts of unit and population, sampling unit, sampling frame, problem of incomplete frame, Random sampling, simple Random sampling (srs) with and without replacement (srs wr, srs wr), estimation of population Mean, Variance and their unbiased estimators. Basic concepts used in tests of Significance, statistical Hypothesis, null Hypothesis, two types of error, Level of significance, degree of freedom, definition and uses of z test and t test In testing significance of difference between two means, F test in testing, equality of two variances. χ^2 test, as test of independence of attributes in 2 x 2 contingency table only.

Scattered diagram, positive and negative correlation, correlation coefficient, range of correlation coefficient, concept of line of best fit.

Basic principles of Experimental Design, Description and Analysis of Completely Randomized

Design (C.R.D.), Randomized Block Design (R.B.D.) and Latin Square Design (L.S.D.).

MATHEMATICS

Limits and Differentiation (without differentiation by first principles). Differentiation of algebraic, trigonometrical, logarithmic and exponential functions only. Logarithmic differentiation,

Differentiation of products, quotients, function of functions, implicit and explicit functions.

Practical based on:

1. Measures of central Tendency.
2. Measures of Dispersion.

3. Tests of Significance.
 4. Analysis of CRD.RBD and LSD.
- Note- Calculator and statistical tables are allowed in practical exam.

	Course	
Semester I	STRUCTURAL AND SPOKEN ENGLISH	1+0=1

ELEMENTS OF ENGLISH GRAMMAR:

(A) REVISION

1. Study and use of Articles: Pronouns and Prepositions.
2. Tenses in English

(B) SENTENCE STRUCTURE

1. Sentence formation
2. Some common varieties of sentence structure (including errors).

(C) READING COMPREHENSION

Six specified lessons from the following text book:

Name: Glimpses of English Prose.

Author: Dr. O.P. Dixit

Publisher: Sahitya Niketan, Kanpur.

(D) WRITTEN COMMUNICATION

1. Letter and application writing
2. Report writing.

(E) VOCABULARY

1. Synonyms and antonyms
2. One word substitution
3. Affixes, prefixes and suffixes

	Course	
Semester-I	PHYSICAL EDUCATION	0+1=1

1. Practical knowledge of field preparation of different games and sports and their maintenance.
2. Knowledge of rules and regulations of games and sports.
3. Practical knowledge of games and sports.

	Semester II	
	Course	
Semester II	NATURAL RESOURCES AND FARM MANAGEMENT	2+1=3

A. Natural Resource Economics

Definition, subject matter and scope of economics.

Micro Economics and Macro Economics within both static and dynamic framework.

Definition, subject matter and significance of agricultural economics.

Primitive and scientific Agriculture. Characteristics and Indian agriculture; major problems including causes of low productivity.

Economic Development, role of agriculture, Technological change in agriculture and

various inter-relationships.

Task of an economic system, role of economic theory in agriculture.

Production:

Basic production problems, production function, productivity curves^ relationships thereof intensity of resource use, Law of diminishing returns, output-elasticity, homogeneity in production functions.

Consumption:

Theory of demand, demand curves, consumption function, Elasticity, Utility Analysis, Indifference Curve, Consumer's surplus.

B. Natural Resources

General and economic study of land and land use pattern, water and forest.

C. Farm Management Economics

1. Definition and scope of farm economics and management
2. Farm Management and production economics. Agricultural Economics and Industrial Economics - Similarities and differences.
3. Management decisions and cultivators' holdings. Economic Principles their role In farm management. Application of economic Principles/Laws.
4. Law of Diminishing, Returns/Principle of variable Proportions laws of return, scale properties. Law of Equi-marginal Returns, Law of such situation, opportunity cost/ opportunity Returns, Law of comparative advantage.
5. Production Function, productivity curves, least cost combination of inputs, Principle of combining Enterprises Determination of Optimum output.
6. Cost concepts and Principles, Cost Relationship and curves.
7. Time Comparison (Compounding and discounting of costs). Allocation of Overhead and command costs.
8. Profit Maximization.
9. Measures of farm profit.
10. Farm Records and Accounts.
11. Methods of valuation and depreciation of assets.
12. Types of farming: Diversified, General farm, subsistence or Marginal farming, specialized farms, Mixed farming, Ranching and Dry farming.
13. Systems of farming Cooperative farming, peasant farming, state farming, collective farming, capitalistic farming.
14. Tools of Farm Management: Farm Budgeting (Complete and partial budgeting) and farm Planning, Linear Programming (Graphical method).
15. Definition of Institute and University: Types of uncertainty in agriculture (Price uncertainty, yield uncertainty, innovation uncertainty Social and legal frame as a source of uncertainty). Diversification (complementary and supplementary relationships) as a mechanism to minimize uncertainty), crop and cattle insurance, pump set insurance Arguments for and against.

Practical:

1. Socio-economic survey and collection of data, classification and tabulation with special reference to natural resources of a village.
2. Study of a farm holding (resources, enterprises, costs, profit and complete farm economy) of the allotted farmer by cost-accounting method.
3. Preparation of an alternative farm plan for the farmer.
4. Submission of Report.

1. **Biochemistry**- Introduction, scope and importance in agriculture.
2. **Carbohydrates** - Definition, Classification, Chemistry and Structural formula of the following saccharides:-

i. Glucose	ii. fructose	iii. Galactose
iv. Mannose	v. Sucrose	vi. Lactose.
vii. Maltose	viii. Starch	ix. Cellulose.
3. **Proteins**- Definition, Classification, Composition, Properties, Primary and secondary Structure and its important functions.
4. **Amino acids**: Definition Classification, important properties and their nutritional significance
5. **Lipids**: Definition, Classification, important common saturated and unsaturated fatty acids found in fats and oils and structural formula of the following fatty acids:
 (I) Saturated fatty acids- Butyric, caproic, palmitic and stearic acid.
 (II) Unsaturated fatty acids- oleic, linolenic, erucic acid.
6. **Enzyme**: Definition, nomenclature and function and factors affecting of enzyme activity.
7. **Vitamins**: Definition Classification and their sources, biochemical functions and structural formula of vitamin A, O, E, K, Thiamine, Riboflavin and Nicotinic acid.
8. General idea about the nucleic acid.
9. **Alkaloids**: Definition, classification, general properties and their biological significance, Structural formula of Conine, Nicotine and Piperine.

Practical

1. Qualitative test of important sugars, proteins in plants.
2. Estimation of reducing and non reducing in sugar cane juice and jaggery.
3. Quantitative determination of protein in pulses and fats and oils in oil seeds.
4. Estimation of Ca as Cao and CaCO₃ in plant HCl extract.

1. Importance of water in crop production,
2. Soil Moisture constants.
3. Estimation of potential evapo-transpiration and consumptive use
4. Water requirement of crops and factors affecting it.
5. Approaches of irrigation scheduling.
5. Systems and methods of irrigation - drip, sprinkler and mist Irrigation.
7. Quantity and quality of irrigation.
8. Measurement of irrigation water.
9. Elementary idea of drainage on farms.

Practical

1. Measurement of irrigation water.
2. Determination of soil moisture contents.
3. Calculation on consumptive use of water.
4. Numerical exercises on drainage and irrigation requirement.
5. Calculation of irrigation water use efficiency.

6. Visit to irrigation and drainage projects,
7. Preparation of practical record.

Course		
Semester-II	EXTENSION EDUCATION AND RURAL DEVELOPMENT	2+1=3

1. Extension Education:

- a. Meaning, Definition, Objectives, Principles, Scope, Philosophy and its distinguishing features.
- b. Extension Teaching and Learning: Teaching, Teaching Elements, steps in Teaching and Learning, Learning Situation, Basic Principles of Teaching and Learning.
- c. Early Extension Efforts in India.
- d. Comparative study of Extension Service in India and USA.

2. Community Development:

- a. Meaning, Definition and objectives of community development
- b. Organizational set up and Activities of Community development at State, District, Block and Village level.
- c. Extension and Rural Development Programmes: Including T and V system, National Demonstration, IRDP, Jawahar Rojgar Yozana.

3. Extension Programme Planning, Monitoring and Evaluation:

- a. Meaning, Principles and Procedure of Programme Planning.
- b. Definition, purpose, types, criteria and steps involved in monitoring and evaluation.
- c. Role of extension agent in programme planning.

Practical

1. Practice in Conducting Survey
2. Practice in preparing schedule and Questionnaire for studying the organizational set up of community development.
3. Contact with the farmers and educating them in new technology of Agriculture.
4. Preparation of an outline and practice on evaluation of a programme.
5. Classification, Tabulation and diagrammatic representation of data.
6. Writing study Reports.
7. Preparation of practical record.

Course		
Semester-II	ELEMENTARY CROP PHYSIOLOGY	2+1=3

1. Role of plant physiology in agriculture.
2. Cell structure and function.
3. Plant tissues,
4. Physio-chemical phenomenon-diffusion, osmosis and imbibition.
5. Essential nutrient elements, their role, deficiency symptoms, mineral salt, absorption.
6. Photosynthesis - light and dark reactions.
7. Mechanism of respiration, transpiration
8. Ecological adaptation of plants.
9. Plant growth substances, photoperiodism and vernalization.

Practical

1. Experiments on diffusion, osmosis and imbibition.

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- Experiments on factors affecting rate of photosynthesis (CO₂, light and temperature).
 - Preparation of practical record.

	Course	
Semester-II	ELEMENTARY MICROBIOLOGY	2+1=3

- Definition, scope and importance of microbiology
- Characteristics of Prokaryotic and Eukaryotic.
- The type and classification of micro organism with particular references to bacteria, fungi and virus.
- General structure of bacteria and fungi.
- Shape, size, locomotion, reproduction, growth, nutrition and morphology of bacteria and fungi.
- Factors affecting of growth of microorganism.
- Koch's postulates.
- Microbiological laboratory techniques - microscopy, sterilization, isolation, identification and enumeration.
- Simple and Gram's staining techniques of bacteria.
- Characteristics of Gram's positive and negative bacteria.
- General structure of bacteriophage and replication.

Practical

- Study of microscope and microscopic techniques.
- Simple and Gram's staining of bacteria
- Preparation of nutrient broth, Czapek-Dox and Richard's media.
- Enumeration and measurement of bacteria and fungi.
- Practical record.

	Course	
Semester II	INTRODUCTORY ENTOMOLOGY	2+1=3

- Insect Morphology: Body wall-structure, composition and functions; Body divisions - Head (structure and its appendages: structure, functions and modifications of antennae; Mouthparts- Biting and chewing, piercing and sucking, sponging, siphoning, chewing and lapping); Thorax- Its structure and appendages, modifications and functions of legs and wings, wing coupling apparatus and wing venation; Abdomen - its segments and appendages.
- Anatomy: Digestive, Excretory, Reproductive, Circulatory, Respiratory and Nervous systems of grasshopper.
- Sense organs: Structure and functions of ocelli, compound eye, tympanum and Johnston's organ.
- Post-embryonic development including ecdysis, instars, types of larvae and pupae. Different types of metamorphosis.
- General introduction to Phylum Arthropoda, its various classes and their distinguishing characters with particular reference to class Insecta.
- Taxonomy: Insect classification upto the level of families of agricultural importance of following orders:
 - i) Orthoptera : Acrididae.

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- ii) Isoptera : Termitidae.
 - iii) Hemiptera : Coreidae, Pyrrhocoridae, Lophopidae, Aleurodidae, Jassidae, Aphidae, Coccidae, Lacciferidae.
 - iv) Coleoptera : Dermestidae, Coccinellidae, Bruchidae, Chrysomelidae, Curculionidae, Tenebrionidae, Scarabaeidae.
 - v) Lepidoptera : Gelechiidae, Pyralidae, Noctuidae, Cymbidae, Papilionidae, Arctiidae and Bombycidae.
 - vi) Hymenoptera : Tenthredinidae and Apidae.
 - vii) Diptera : Trypetidae (Tephritidae), Cecidomyiidae and Agromyzidae.

Practical:

1. Dissection of grasshopper for the study of digestive, reproductive and nervous system.
2. Study and temporary mounting of external parts of grasshopper.
3. Identification and comments upon the various arthropods.
4. Collection and preservation of insects.
5. Practical record.

	Course	
Semester II	COMPUTER AND ITS APPLICATION IN AGRICULTURE	2+1=3

1. Introduction to computer. A brief history of computing. Data Processing and Information. Characteristics of the computer, function, capability and limitations, strength and weakness of computers.
2. Generation of computers, First, Second, Third, Fourth and Fifth generation computer with their features only.
3. Types of computer, Digital, Analog and Hybrid computers.
4. Classification of computers on size and capabilities of Micro-, Mini-, Mainframe and Super computer.
5. Anatomy and components of computer, computer organisation CPU, ALU, Input and output devices, peripheral devices, storage units hard disk, compact disk, various types of memories, RAM, ROM, PROM and EPROM.
6. Number systems, Decimal, Binary, Octal, Hexadecimal/Character codes, ASCII, EBCDIC, BCD.
7. Types of softwares, System softwares and Application softwares. Introduction to DOS, (Disk Operating System), Fundamentals of DOS commands, Internal commands, external command, files and directory, Editor.
8. Elementary Idea of BASIC (Computer Language).

Practical

Practice of Application software Ms Word, Excel, Simple programming exercise in BASIC for elementary statistics.

	Semester III	
	Course	
Semester III	FIELD CROPS I	2+1=3

Importance, origin, distribution climate varieties soil practices, manuring and Irrigation, plant protection, harvesting and processing of the following crops, under different agroclimatic

conditions of U.P.

- A. Cereal Crops: Paddy, Maize.
- B. Millet Crops: Sorghum, Bajra.
- C. Oil seed crops: Groundnut, Til, castor.
- D. Pulses Crops: Pigeon Pea, Urdbean, Moongbean, Soybean, Cowpea.
- E. Fibre Crops: Cotton, Jute, Sunnhemp.
- F. Green Manure crops: Sun hemp and Dhaincha.
- G. Fodder Crops: Chad, Napier, Sudan grass, Cluster bean, cowpea.

Practical

- 1. Identification of crop-seeds, crops associated weeds.
- 2. Practical knowledge of operations from sowing to harvesting of kharif crops Included In theory course.
- 3. Judging of maturity and estimation of yields.
- 4. Study of crop production techniques at different farms.
- 5. Calculation of seed and fertilizer-requirement of crops.
- 6. Preparation of seed beds of important crops.
- 7. Visit to farms of Universities and Institutes.
- 8. Preparation of practical record.

	Course	
Semester-III	PRINCIPLES OF PLANT BREEDING	2+1=3

- 1. Plant Breeding - history, objectives and scope;
- 2. Mode of reproduction in crop plants in relation to breeding techniques.
- 3. Plant variation kind and causes.
- 4. Genetic consequences of self and cross pollinated crops.
- 5. Plant Introduction and exploration.
- 6. Breeding self pollinated crops, population's improvement, Mass selection, recurrent selection. Breeding cross pollinated crops mass selection, pedigree, bulk and back cross methods.
- 7. Male sterility and its importance.
- 8. Breeding of asexually propagated crops, Clonal selection and apomixes.
- 9. Polyploidy and mutation breeding.

Practical

- 1. Technique of emasculation and artificial pollination in important crops.
- 2. Practical record.
- 3. Preparation of practical record.

	Course	
Semester-III	VEGETABLE CROPS PRODUCTION	2+1=3

- 1. Importance and scope of vegetable production.
- 2. Classification of vegetables.
- 3. Types of vegetable gardens.
- 4. Cultivation and seed production of major vegetables like Potato, Brinjal, chillies, tomato, Cauliflower, Cabbage, knolkhol, Onion, gourds, Musk melon, Watermelon, Okra, Radish, Carrot and Fea.

Practical

1. Nursery raising of vegetable crops.
2. Production of seeds in vegetable available at the time of course.
3. Cost of cultivation studies in Potato, Tomato, Cauliflower and Okra.
4. Production oriented training in cultivation of vegetable crops.
5. Layout of kitchen garden.
6. Preparation of practical record.

Course**Semester-III****PRINCIPLES AND METHODS OF SOIL AND
WATER CONSERVATION****2+1=3**

1. Definition, importance and history of soil conservation in agriculture.
2. Physical properties of soil and their determination.
3. Definition of Soil survey and land use capability classification.
4. Measurement of distance, direction and elevation of survey.
5. Definition, types, mechanism and causes of erosion. Factors affecting soil erosion. Agronomical practices for soil and water conservation. Engineering practices such as bunding, terracing, temporary and permanent structures for gully control. Grassed waterways, water harvesting, shifting cultivation.
6. Definition, objectives and uses of Remote Sensing.

Practical

1. Familiarization with chain survey equipments and its survey.,
2. Familiarization to prismatic compass (PC.) and calculation of included angles. Calculation of included angles.
3. Study and adjustment of Dumpy level (D.L).
4. Construction and design of bunds with calculation of earth work.
5. Calculation of infiltration rate and bulk density .
6. Visit to soil conservational research centres.
7. Preparation of practical record.

Course**Semester-III****FARM POWER AND MACHINERY****2+1=3**

1. Farm structures farm site, feed grain storage structure, Building material for Farm house, dairy building and poultry housing.
2. Elementary knowledge about the engineering terminology and calculations and piston displacement, compression ratio, HP and efficiencies of engines. Construction and working of four stroke and two stroke cycle I.C. engines, common engine troubles, causes and their remedies.
3. Classification of tractors, Elementary knowledge about main components of tractor and their functions such as steering, clutches, transmission gears, differential and final drive, brakes, belt, pulley PTO, shaft end hydraulic lift. Method of starting and stopping of tractors. General care and maintenance.
4. Study of simple parts, operation and installation of an electric motor (Induction type only), calculation of HP units consumed Role of switches, fuses and starter.
5. Study of construction, working principles, troubles and adjustments of the following

machines; M.B. Plough, Disc plough, Disc harrow, cultivator, secondary tillage equipments, seed drill and planter, reaper and mower, threshers, combine, sprayers and dusters. Calculation of area covered, power requirement and efficiency of above machines. Contribution of seed drill.

Practical:

1. Preparation of layout for farm houses, dairy farm and poultry housing.
2. Study of construction of four stroke and two stroke cycle I.C. engines operating and running of diesel engines.
3. Study of tractor's transmission systems and tractor driving practice.
4. Study of M.B. Plough.
5. Study of Disc Plough.
6. Study of seed drill and planter and its calibration.
7. Study of power thresher.
8. Visit to places of engineering interest.
9. Identification of different work shop tools, farm machines and engine parts.
10. Preparation of practical record.

	Course	
Semester-III	AGRICULTURAL MARKETING AND COOPERATION	2+1=3

A. Agricultural Marketing:

Market. Meaning, scope and classification of markets.-Definition of agricultural marketing, demand, supply and price. Marketable surplus, marketed surplus. Integrated marketing. General theory of markets and marketing.

Demand for agricultural products.

Production and market supply.

Price Determination and price analysis under different market structures.

Marketing Functions and services.

Marketing costs, margins and efficiency.

Defects of Present system of marketing of agricultural produce. Steps taken by the Indian

Government and possibilities of improvements.

Fixation of agricultural Prices.

Marketing Institutions; Regulated and cooperative markets.

Market Research.

B. Export

The concept of export as a district business activity In agricultural sector of the Indian economy, its Importance and role In economic development.

Policies of export of food grains and agricultural commodities pursued by the Indian Government.

Import vs. export value of cereals and other agricultural commodities.

Agencies engaged in exporting agricultural goods.

C. Cooperation

Meaning and Concept of Cooperation, principles of Cooperation (Equality, universality, distributive, justice, democracy, unity, honorary services and voluntarism).

Place of thrift in cooperation, economic planning and cooperation.

History and Progress of cooperative-movement in India.
 Structure and organization of agricultural cooperation in India.
 National cooperative federations, courses of slow growth of agricultural cooperatives, suggestions for rapid development. National Bank for Agriculture and Rural development (1982).
 Cooperative farming: Meaning thereof, New classification cooperative farming, cooperative joint farming, cooperative collective farming. Advantages thereof.
 Reasons for apathy of farmers in adopting cooperative joint farming.

Practical

Survey of a market (mandi) both primary and secondary (at least one each).
 Case studies of marketing of a minor and a major commodity with respect to marketing channels costs margin and price spread over.
 Study of a
 (i) cooperative marketing society
 (ii) a warehouse functioning market
 (iii) a regulated market and
 (iv) a cold storages.
 Submission of a report on the above four aspects.

Course		
Semester III	INTRODUCTORY PLANT PATHOLOGY	2+1=3

1. Definition and importance of plant pathology.
2. Causes of plant diseases.
3. Classification of plant diseases according to cause and occurrence.
4. Plant Pathogens:
 - (a) **Fungi**
 - (i) Economic importance and general characteristics.
 - (ii) Morphology of different vegetative structures (thallus, mycelium, haustoria, etc.)
 - (iii) Reproduction.
 - (iv) Different types of spores.
 - (v) Levels of parasitism.
 - (vi) Nomenclature.
 - (vii) Classification of fungi with special reference to genera listed under following item:-
 - Life histories of Pythium, Albugo, Erysiphe, Ustilago, Claviceps and Puccinia.
 - Diagnostic characters of the following genera: Phytophthora, Peronospora, Sclerospora, Ustilago, Sphacelotheca, Tolyposporium, Melampsora, Alternaria, Cercospora, Fusarium, Helminthosporium, Pyricularia, Rhizoctonia and Colletotrichum.
 - (b) **Bacteria**
 - (i) Brief history of bacteria as plant pathogens.
 - (ii) Morphology and Cell structure.
 - (iii) Vegetative reproduction.
 - (iv) Classification of plant pathogenic bacteria.

- (v) A brief account of mycoplasma,
- (c) Viruses**
- (i) Brief history.
- (ii) Nature and properties.
- (iii) Transmission of plant virus.
- (d) Phanerogamic parasites :**
Cuscuta, Loranthus, Orobanche and Striga

Practical

1. Temporary slide preparation of representative genera of disease causing fungi for morphological studies.
2. Simple staining of bacteria from.
3. Preparation of PDA and nutrient agar.
4. Preparation of practical record.

Semester IV

Course-I

Semester- IV

FIELD CROPS II

2+1=3

Importance, origin, distribution, climate, improved varieties, agronomic practices manuring and irrigation, plant protection, harvesting and processing of the following crops under various agro-climatic conditions of U. P.

- A. Cereal Crops: Wheat, Barley, Oat
- B. Oilseed Crops: Rapeseed and mustard Linseed, Sunflower
- C. Pulse Crops: Chickpea, field pea, Lentil, Rajmah.
- D. Fodder Crops: Oat, Berseem Lucerne
- E. Cash Crops: Potato, Mentha, sugarcane and tobacco,

Practical

1. Identification of crop seeds, crops associated weeds.
2. Practical knowledge of operations from sowing to harvesting of crops Included in theory course.
3. Judging the maturity and estimation of yields.
4. Calculation of seed and fertilizer requirement of crops.
5. Preparation of seed bed of important crops.
6. Visit to farms of universities and institutions.
7. Preparation of practical record.

Course-II

Semester- IV

BREEDING OF FIELD CROPS

2+1=3

1. Origin, distribution and objectives.
2. Breeding problems, systematic description and economic importance.
3. Breeding methods adopted and achievements with reference to following crops:
 - (a) Cereals : Wheat, rice and maize.
 - (b) Millets : Sorghum and pearl millet.
 - (c) Pulses : Gram, Pea and Arhar.
 - (d) Oil-seeds : Mustard, groundnut and sunflower.
 - (e) Others : Cotton and potato.

Practical

1. Identification of important varieties of above mentioned crops,
2. Systematic description and artificial hybridization of above mentioned crops.
3. Significant research advances made in above mentioned crops.
4. Preparation of practical record.

Course**Semester- IV****FRUITS AND PLANTATION CROPS****2+1=3****PRODUCTION**

1. Importance, scope and present position of fruit and plantation crops in India
2. Practices involved in the production of fruits: Mango, Guava, Kagzi lime, Banana, Grape, Litchi, Papaya, Loquat, Aonla, Ber, Jack Fruit, Apple and Peach.
3. Production techniques of plantation crops: Coconut, Cashew nut, Tea Coffee and coca,

Practical

1. Identification of fruits and plantation crops,
2. Orchard layout and planting,
3. Practice of different propagation methods with special reference to fruits.
4. Practice of training and pruning of fruit plants,
5. Plant protection practices.
6. Visit to orchards, nurseries and research centres of fruits and plantation crops.
7. Preparation of practical record.

Course**Semester- IV****PRINCIPLES AND METHODS OF
INSECT PEST MANAGEMENT****2+1=3**

1. Pest, its definition, classification and reasons of pest outbreak.
2. Methods of insect control including mechanical, physical, cultural, biological, legal, genetic, ecological and chemical.
3. Insecticides: Classification and detailed study of important insecticides of plant and animal origin and synthetic chemicals.
4. Novel insecticides including Insect Growth Regulators and pheromone. Repellents, antifeedants, attractants, chemo-sterilants.
5. Preliminary knowledge of hazards related to pesticide use, MRL, ADI, Mammalian Safety Ratio.
6. Basic concept of Integrated Pest Management, decision making levels, survey and surveillance and sampling methods.
7. Elementary knowledge of plant protection equipments and pesticide application techniques.
8. Plant protection organizations at the state, national and international level.

Practical:

1. Collection and preservation of established predators and parasitoids.
2. Dilution and application of insecticides, study of label, leaflet and colour code associated with insecticide containers.
3. Handling of plant protection equipments.
4. Practical record.

Semester- IV	Course LIVESTOCK PRODUCTION AND MANAGEMENT (INCLUDING POULTRY)	2+1=3
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General :

Importance of farm's livestock and poultry in agriculture and Indian economy. Relationships of plants with animal husbandry. Farm's livestock biodiversity (important Species & Breeds) in India and their physical characteristics. Livestock farming systems in India. Management skills-animals, land, labour and business.

Cattle and buffalo production:

Reproduction and breeding management- Aims and objectives, male and female reproductive system, reproduction under hormonal control and development of sperm & ova. Infertility problems-causes and their possible solution. Methods and systems, of livestock reproduction & breeding. Care and management of down calvers, milch cows, calves & heifers and stud bulls. Maintenance of different livestock records. Housing requirement for dairy animals. Sheep, Goat, Pig and Poultry Production:- General aspects of reproduction, breeding, feeding and care & management in brief.

Practical :

1. Judging of dairy cattle and buffalo.
2. Demonstration of A.I. technique.
3. Demonstration of external body parts.
4. Demonstration of castration, dehorning and farms animal's marking for identification,
5. Use of common appliances in controlling farms animals.
6. Estimation and calculation of cost of production.
7. Estimation of weight and age of livestock.
8. Preparation of practical record.

Semester- IV	Course HEALTH AND DISEASE MANAGEMENT OF LIVESTOCK (Including Poultry)	2+1=3
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Meaning of health and disease, classification of diseases. Pathogenesis and immune system. The antigens, antibiotics, antiseptics, disinfectants, and their role in disease control. The principles of spread and control of infectious diseases, knowledge of various technical terms are used when discussing infectious diseases. Elementary knowledge of prevention and control of following common diseases of livestock and poultry. Bovine anthrax, black quarter, hemorrhagic septicaemia, Brucellosis, mastitis, foot and mouth disease, John's disease and disease of new born calf, worm infestation, milk fever and some other metabolic disorder. Enterotoxaemia in sheep and goat. swine fever and hog cholera in pig. Ranikhet, avian pox, Marek's disease, Gambro disease, chronic respiratory disease, infectious coryza and fowl cholera in poultry.

Practical:-

1. Recording of body temperature, respiration rate and pulse rate.
2. Specimen collection of blood, faeces, urine, pus, milk and body tissues for diagnostic laboratory use.

3. Common diagnostic qualitative tests-Mastitis, Benedict's test,
4. Useful disinfectant of livestock and poultry farms.
5. Identification of common medicines in used.

Course		
Semester-IV	SILVICULTURE AND AGRO-SOCIAL FORESTRY	2+1=3

(A) Silviculture :

1. Definition and scope of silviculture and forestry, Its scope and classification.
2. Role of forests-geographic, productive and bio-aesthetical.
3. Elementary idea of forest types.
4. Regeneration of forests.
 - (a) Natural red production, seed dispersal, germination and seedling establishment.
 - (b) Artificial Afforestation, reforestation and their objectives. Choice of tree species, nursery techniques.

(B) Agro-forestry and Social Forestry :

1. Definition, concept and need of agro-and Social Forestry.
2. Classification of agro-forestry and Social Forestry systems.
3. Prominent agro and Social forestry system prevailing in Utter Pradesh.
4. Limitations of agro- and Social forestry. Choice of tree species for agro- and Social forestry for fuel, fodder and timber requirement.
5. Cultivation and shelter of teak, Sal and poplar trees.

Practical

1. Afforestation- techniques of problematic sites viz. ravines, saline-alkali soils, water logged areas, arid areas, hilly areas, roadside and canal bank plantation.
2. Nursery techniques - Numerical problems.
3. Numerical problems on planting and cost of earthwork estimation.
4. Identification of forest tree species.
5. Preparation of practical record.

Semester V		
Course		
Semester-V	WEEDS AND WEED MANAGEMENT	2+1=3

- (A) Definition, classification and general characteristics of weeds, Advantages and disadvantages of weeds.
- (B) Principles and methods of weed control.
- (C) Weed control schedules for important field crops of U.P.
- (D) Integrated weed management system and Its importance.
- (E) Control of Abnoxious weeds viz. Sedges grass, Kans, Baisuri, Satyanasi, Parthenium, Phalaris minor, Hirankhuri and Pyaji.

Practical

1. Identification and preservation of important weeds of locality.
2. Calculation on quantities of herbicides, weed control efficiency and weed index.
3. Calculation of cost involved in different weed control schedules.
4. Preparation of practical record.

	Course	
Semester V	INTRODUCTORY PLANT BIOTECHNOLOGY	2+1= 3

1. Definition scope and importance of plant biotechnology.
2. Outlines of basic steps involved in plant biotechnology / genetic engineering such as:
 - (a) Isolation of plant DNA and Vector DNA
 - (b) Restriction of DNA by endonucleases.
 - (c) Electrophoresis of restricted DNA fragments.
3. Cloning vectors for recombinant DNA such as-
 - (a) Ti-plasmid vector for higher plants.
 - (b) Plant viruses such as cauliflower mosaic virus (CaMV), tobacco mosaic virus (TMV) and geminiviruses as vectors.
4. Applications of plant genetic engineering in crop improvement.
5. Plant tissue culture:
 - (a) Culture media used in plant tissue culture.
 - (b) Somatic and gametoclonal variation in plants.
 - (c) Micro - propagation of plants.
 - (d) Application of plant tissue culture in crop improvement.

Practical

1. Elementary knowledge of instruments used in Plant Biotechnology.
2. Media Preparation for Tissue culture, Ovary culture, Anther culture, Ovule culture.
3. Isolation of DNA.
4. Preparation of practical record.

	Course	
Semester V	PRODUCTION TECHNOLOGY OF SPICES MEDICINAL AND AROMATIC PLANTS	2+1=3

1. Importance and scope of medicinal, aromatic plants and spices.
2. Cultivation of Mentha, Citronella, Khus, Ocimum, Rauwolfia and Dioscorea.
3. Cultivation of Turmeric, Zinger, Coriander, Cumin and Saunf in the North Indian conditions.

Practical

1. Identification of medicinal and aromatic plants.
2. Calculation of cost of cultivation of Mentha, Citronella, Rauwolfia and Dioscorea.
3. Practical Identification and demonstration of spices in the course.
4. Visit to commercial growing places and research stations of the medicinal, aromatic and spices crops.

	Course	
Semester-V	DAIRY CHEMISTRY AND ANIMAL NUTRITION	2+1=3

Dairy Chemistry-

The milk and its synthesis in mammary glands. Chemical composition of milk of different species and colostrum. Details composition and physio-chemical properties of cow and buffalo's milk. Factors affecting quantity and chemical composition of milk. Chemistry of milk constituents viz. lactose, fat, protein, enzymes and vitamins.

Preservatives and adulterants of milk. Chemical changes occurring during storage of milk. Synthetic milk. Animal Nutrition. The composition and comparison of plants and animal body. Ruminant's digestive system. Water, carbohydrates, protein, lipid, mineral and vitamins in animal nutrition. Feed additives. Classification of common feeds and fodders. Feed quality, and animal output relationships. Evaluation of energy and protein value of feed. Processing methods of animal feed stuffs. Various feed processing methods for improving nutritive value of inferior quality roughages. Harmful natural constituents and toxic substances in animal feeds. Conservation of fodders. Scientific livestock feeding practices.

Practical-

1. Sampling of milk and its analysis for its composition & acidity.
2. Detection of preservatives and adulterants in milk.
3. Demonstration of proximate analysis of feed and fodders sample.
4. Ration formulation and mixing for different class of livestock and poultry.
5. Identification of common feed stuffs.
6. Demonstration of "urea-minerals-molasses-block" preparation.

	Course	
Semester- V	SOIL FERTILITY AND NUTRIENT MANAGEMENT	2+1=3

1. Soil fertility: Definition concept, and factors influencing soil fertility.
2. Essential plant nutrient Criteria of essentiality, forms of nutrients in soil, functions, deficiency Symptoms, Critical levels of deficiency and toxicity.
3. Mechanism of nutrient transport to plants and factors influencing nutrient availability to plants.
4. Mineralization and immobilization of Nitrogen, fixation and availability of N. P. and K.
5. Soil fertility evaluation, soil and plant analysis, tissue tests.
6. Soil testing: Soil test in crop response and correlation, fertilizer recommendation based on soil test.
7. Fertilizers - definition, classification, characteristics, reactions of fertilizer in soil and fertilizers use efficiency.
8. Organic manures: Preparation, properties and use in crop production, nutrient enriched compost, vermi-compost and green manure.
9. Integrated nutrient management-problems and prospects;
10. Concepts of I.N.M. and management of soil productivity.

Practical

1. Analysis of N. P. and K in fertilizers.
2. Determination of available of NPK and Sin soil.
3. Elementary idea of determination of micronutrients in soil.

	Course	
Semester- V	ECONOMIC ENTOMOLOGY	2+1=3

1. Economic importance of insects, nature and extent of damage, life history and management of the major insect pests of following crops as mentioned against them:

Paddy	Scripophaga incertulus, Leptocoris varicornis, Hieroglyphus spp, Nilaparvata lugens, Nephotettix spp, Mythimna separata.
Jowar/Maize	Chilo partellus, Athehgona varia soccata. Sugarcane Tryporyza nivella, Emmalocera depresella, Pyrrilla perpusilla, Aleurolobus barodensis.
Cotton	Pectinophoragossypiella, Ear as spp, Sylepta derogata, Dysdercus spp, Bemisia tabaci, Amrasca biguttula biguttula.
Oilseeds	Lipaphis erysini, Athalia lugens proxima, Bagrada cruciferarum, Dasyneura lin.
Pulses	Helicoverpa armigera, Agrotis spp, Etiella zinckenella, Melanagromyza obtusa, Lampides boeticus, Phytomyza atrlcomis.
Pests of fruit crops	Drosicha mangiferae, Idioscopus spp, Papilio demoliu, Diaphorina citri, Phyllocnistis citrella, Otheris spp, Virachola Isocrates, Eriosoma lanigerum, Quadraspidiotus pemiciosus, Bactrocera diversa, Carpomyia vesuviana, Icerya spp., Pentalonia nigronevosa, Odoiporus longicollis, Cosmopolites sordidus.
Pests of vegetable crops	Leucinodes orbonalis, Epilachna vigintioctopunctata, Raphidopalpa foveicollis, Bactrocera cucurbitae, Plutella xylostella, Pthorimea operculella, Hellula undalis.
Pests of stored grain	Sitotroga cerealella, Cadra (=Ephesia) cautella, Corcyra cephalonica, Sitophilus oryzae, Oryzophilus surinamensis, Trogoderma granarium, Tribolium castaneum, Callosobruchus chinensis.
Polyphagous pests	Odontotermes obesus, Schistocerca gregaria, Holotrichia spp, Spilactia obliqua, Spodoptera litura, Amsacta spp.

2. Elementary knowledge of Apiculture, Sericulture and Laculture.

Practical

1. Collection, mounting and preservation of insect pests of different crops at different stages.
2. Field and laboratory acquaintance with insect pests, various life stages and damaged material.
3. Technical knowledge of honey, silk and lac production.
4. Field application of insecticidal formulations.
5. Practical record.

Course

Semester-V

CROP DISEASES AND THEIR MANAGEMENT

2+1=3

1. General Symptoms of plant diseases.
2. Methods of plant disease management.
3. Preliminary knowledge of different groups of fungicides.
4. Study of the symptoms, etiology, mode of perpetuation and management of the following diseases:
 - (a) Early and late blight of potato.
 - (b) White rust of crucifers.
 - (c) Green ear disease of bajra.
 - (d) Powdery mildew, Loose smut, Karnal bunt and rusts of wheat.
 - (e) Covered smut of barley.

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- (f) Grain smut of Jowar
 - (g) Bajra smut
 - (h) Rust of linseed
 - (i) Tikka disease of groundnut
 - (j) Wilt of arhar
 - (k) Stripe disease of barley
 - (l) Red root of sugarcane
 - (m) Blast of rice
 - (n) Citrus canker
 - (o) Khaira disease of paddy and Black tip of mango
 - (p) Tobacco mosaic
 - (q) Yellow vein mosaic of bhindi
 - (r) Bean common mosaic
 - (s) Little leaf of brinjal

Practical

1. Diagnosis of important diseases by studying symptoms.
2. Microscopic examination of diseased parts.
3. Preparation of Bordeaux mixture.
4. Identification of some important fungicides.
5. Practical record.

Semester VI

Course

Semester VI FARMING SYSTEMS AND SUSTAINABLE AGRICULTURE

2+1=3

1. Farming systems : Defination, types and methods of farming.
2. Definition : Scope and advantage of sustainable agriculture.
3. Modern agriculture in relation to sustainable agriculture.
4. Sustainable agriculture in relation to tillage fertilizers, irrigation, weed management and plant protection measures.
5. Important cropping systems for sustalnable agriculture.

Practical

1. Prepare important rotations for sustainable agriculture.
2. Fertilizer and Irrigation management for sustainable agriculture.
3. Preparation of different models of farming systems.
4. Preparation of cropping scheme under different Agro-climatic conditions of U.P.
5. Preparation of practical record.

Course

Semester VI PRINCIPLES OF SEED TECHNOLOGY

2+1=3

1. History and Importance of seed'technology.
2. Classes of seeds.
3. Characteristics of quality seeds and its importance.
4. General technique of seed production in important agricultural crops.
 - (i) Cereals-wheat, rice, barley, maize, sorghum and bajra.

- (ii) Pulses - chickpea, pigeon pea, field pea and lentil.
- (iii) Oil Seeds - rape seed, mustard, groundnut, sesamum, and soyabean.
- (iv) Commercial crops-sugarcane and jute.
5. Factors affecting seed'longevity and quality.
6. Causes of seed deterioration with reference to genetic and storage.
7. Seed testing-importance, procedures, purity, viability and germination.
8. Certification procedure for important field crops.

Practical

1. Maintenance of seed purity in the field.
2. Field inspection procedure in important crops.
3. Analysis of purity, moisture and germination of seed samples and communication of results.
4. Viability and vigour test.
5. Practical record.

	Course	
Semester VI	ORNAMENTAL HORTICULTURE AND LAND SCAPE GARDENING	2+1=3

1. Importance and scope of ornamental horticulture in India.
2. Cultivation of annuals.
3. Commercial cultivation of rose, canna, Chrysanthemum, marigold and Gladiolus.
4. Making and maintenance of Lawn.
5. Making and maintenance of Hedge and edging.
6. Elementary knowledge of common shrubs, climbers and trees and their various uses.
7. Indoor gardening.
8. Styles of gardens with special reference to Mughal and Japanese gardens.
9. Flower arrangement and techniques to prolong vase life of flowers.

Practical:

1. Identification of ornamental plants.
2. Preparation of herbaceous and shrubby borders.
3. Practice of making garlands.
4. Bouquet and arrangements in vases.
5. Propagation of Ornamental plants.
6. Practice of potting and re-potting of plants.
7. Visit to ornamental gardens and research station.

	Course	
Semester VI	AGRICULTURAL FINANCE AND BUSINESS MANAGEMENT	2+1=3

A. Agricultural Finance

1. Credit-Meaning, Importance and credit control.
2. Definition, need for finance in agriculture, characteristics of good agricultural finance (credit).
3. Decision on the use of credit, Principles of farm credit (Equity or Increasing Risk, Added Cost and Added Return, Cost of Credit and no loss no profit goal of farming and opportunity cost Principle).

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4. Types of loans and classification of agricultural credit.
 5. Qualifications of a borrower, Analysis and three R's and credit (Return, Repayment Capacity and Risk-bearing Capacity). Analysis of three C's of Credit (Character, Capacity and Capital).
 6. Types of Loan, according to liquidity, budgeted loan, loan amortization, even payment method, decreasing method.
 7. Crop index reflecting use and farm finance.
 8. Role and Rural Credit Institutions (Recommendations of the Banking Commission, Integrated Scheme of Rural Finance (Credit), Institutional Agencies, Taccan.
 9. Sources of agricultural finance (Commercial banks, RRB, Lead Bank, NABARD, Cooperative Credit (PACs, Land Development Banks, National Cooperative Federation Farmers' Service Cooperatives).
- B. Business Management
1. Meaning of management, functions of management, role of managers and scope of management in agricultural business. Role and objectives in management references.
 2. Decision making by individuals as well as by groups.
 3. Functional areas of management and their relationship with agriculture production, finance, marketing and human resources as coordination thereof.
 4. Importance and nature of planning, useful generalization of planning forecasting technique with the help of a planning model, components of strategic management. Budgeting in a basic planning technique. Time management, a technique for planning use of manager's own time.
 5. Leadership in Management, Types and Leadership for production, planning and control activities (inventory, control, quality control, cost control) and financial management, financial forecasting and planning acquisition of funds.
 6. Acquaintance of book-keeping and cash account(s). Knowledge of business environment for operation of bank account cheques, bank draft etc.

Practical

1. Factors governing use of capital and identification of credit needs, Time value of money.
2. Compounding and discounting, Tools of financial management, Balance sheet, Income statement and cash flow analysis.
3. Estimations of credit needs and determining unit costs, preparations and analysis of loan proposals, rules of repayment of loans.
4. Study of financial Institutions:- PACS, DCCB, Apex Banks, RRBS, CBS, NABARD.
5. Preparation of practical record.

Semester VI	Course MILK PROCESSING	2+1=3
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Milk :

Composition and properties of their constituents. Market milk definition, standards of different milks In India, nutritive value of milk and their role in human nutrition, milk and public health, clean and safe milk production. Buying, collection, transportation and storage methods of milk. Basis of milk price determination. Bacteriology and deterioration of milk. Quality assurance procedures. Processing of milk for filtration, clarification, bactofugation, standardization, homogenization, cream separation-

centrifugation. Various methods of milk preservation viz.- heating & cooling treatments and other alternative methods. Membrane filtration process of milk. Basic principles of cleaning & sanitization of dairy equipment and packaging of liquid milk.

Practical:

1. Sampling of milk from field for laboratory analysis.
2. Analysis of milk for total solids, solid not fat. fat. Ash, specific gravity and acidity.
3. Assessment of quality of milk by various plate forms tests.
4. Quantitative estimation of bacteria in raw milk by Direct Microscopic Count.
5. Dairy arithmetical calculation.
6. Preparation of practical record.

Course

Semester VI	POST HARVEST AGRICULTURAL ENGINEERING	2+1=3
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1. Importance and advantages of processing of agricultural produce.
2. Study of process and equipments involved in cleaning, drying, storage of farm Produce, Rice milling, Pulse-milling, Wheat milling, Oilseed milling, Soybean processing, Cane-crushing, Chaffcutting and Animal feed grinding.
3. Utilization of agricultural by products such as rice husk and straws, rice bran and Arhar Stalk.
4. Processing and Preservation of food grains and seeds.
5. Bio-methanation of agricultural and municipal wastes.
6. Green house technology / low cost green houses / utility of green houses.

Practical

1. Determination of moisture content of grains.
2. Sieve analysis of ground materials.
3. Study of construction, operation, care and maintenance of different processing equipments.
4. Study of Biogas plants.
5. Visits of places related to processing of farm produce.
6. Preparation of practical record.

Course

Semester-VI	ELEMENTARY NEMATOLOGY AND MUSHROOM CULTIVATION	2+1=3
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(a) Mushrooms:

1. Introduction, history and economic Importance of mushroom.
2. Morphology of edible mushrooms and their classification.
3. Spawn and its preparation.
4. Methods of Cultivation of different types of edible mushrooms (button, oyster, straw, shiitake and black ear mushrooms).
5. Mushroom diseases and pests.
6. Mushroom recipes.

(b) Plant Nematodes:

1. General characters of plant parasitic nematodes.
2. Reproduction and classification.
3. Symptoms of nematode infection.
4. Methods of nematode control.

Practical

1. Production of spawn.
2. Cultivation of White button mushroom.
3. Cultivation of Paddy straw mushroom.
4. Cultivation of Oyster mushroom,
5. Isolation of nematodes from plant.
6. Preparation of practical record.

SEMESTER VII**Course****Semester-VII****RAINFED AGRICULTURE
AND WATER SHED MANAGEMENT****2+1=3**

1. Definition, Characteristics and extent of rainfed / dry land farming areas in the country and the state of U. P.
2. Problems in dryland agriculture.
3. Moisture conservation practices and use of anti-transpirants in dryland farming.
4. Watershed management concept, Principles and practices.
5. Selection of suitable crops. Crop relations and crop mixtures for various categories of rainfed areas.

Practical

1. Preparation of crop rotations and cropping schemes for rainfed farming and dryland agriculture.
2. Determination of Soil Moisture constants.
3. Studies on moisture depletion pattern and rainfed farming.
4. Study of practical application of anti-transpirants.
5. Visit to Dry farming research stations.
6. Preparation of practical record.

Course**Semester-VII****ENVIRONMENTAL SCIENCE AND
AGRO-ECOLOGY****2+1=3**

1. Ecology-definition, division and significance.
2. Environment - Environmental management and control of pollution. Environmental factors affecting plant growth as abiotic and biotic interaction.
3. Ecosystem - Major ecosystems, energy and its flow in ecosystems, biochemical cycles and nutrient cycles.
4. Plant community - classification, composition, and study of plant community structure.
5. Plant adaptation - ecological classification of plants and their morphological anatomical and physiological adaptations to adverse environments as hydrophytes, xerophytes, mesophytes, epiphytes and holophytes.
6. Ecological problems of major crops - cereals, millets, pulse and oilseeds.

Practical

1. To record temperature, relative humidity and light intensity values of the atmosphere.
2. To study the community by quadrat method by determining plant structure of different crops.

3. To study the guttation of the given area by a phylogenetic method, biological spectrum method.
4. To record abiotic components- pH, temperature, light intensity, turbidity in pond ecosystem.

	Course	
Semester-VII	MANAGEMENT OF WASTE LAND AND PROBLEMATIC SOIL	2+1=3

Management of Problematic soil

1. Saline and sodic soils - Occurrence, classification, formation, diagnosis, characteristics and management.
2. Acid Soils - Occurrence, formation, diagnosis, characteristics and management.
3. Waterlogged soils - Occurrence, characteristics and management.
4. Eroded soils: Occurrence characteristics and management. Management of Wasteland
5. Definition, classification, distribution and extent of wastelands in India with particular reference to U.P. and their management.
6. Factors responsible for land degradation and characteristics of different types of wastelands.
7. Soil management in Arid and Semiarid areas and sand dune Stabilization.

Practical

1. Determination of pH, EC, gypsum requirement, lime requirement in problematic soil.
2. Determination of specific gravity, bulk density, pore space, soil texture.
3. Visit to Areas of problematic soil.

	Course	
Semester-VII	POST HARVEST MANAGEMENT AND PRESERVATION OF FRUITS AND VEGETABLES	1+2=3

1. Importance and scope of post harvest management of fruits and vegetables.
2. Post harvest deterioration of fruits and vegetables.
3. Techniques of prolonging the life of fruits and vegetables.
4. Handling, grading and packing of fruits and vegetables.
5. Causes of Spoilage of Fruits and Vegetables.
6. Principles and methods of fruits and vegetables preservation.
7. Canning of pea.
8. Dehydration of fruits and vegetables.
9. Tomato products-jam, jelly and squash.
10. Preservation of Aonia and Bael.
11. Pickles of mango, citrus, chillies and mixed vegetables.

Practical

1. Practical knowledge of harvesting, handling, grading, pre-cooling, waxing and use of chemicals to prolong the post harvest life of fruits and vegetables.
2. Visit to storage and centres carrying improved practices of post harvest handling.
3. Bottling of green pea.
4. Dehydration of seasonal fruits and vegetables.
5. Preparation of Apple jam, Guava and Karonda jellies, preparation of Lime and Orange

squashes, Aonia and Beal preserve, tomato Juice and ketchup.

	Course	
Semester-VII	COMMUNICATION AND EXTENSION SYSTEM	2+1=3

1. COMMUNICATION

(a) Meaning and definition of communication. Communication process, elements and models of communication process. Types of communication. Key communicator, Audio-visual aids, their use and effectiveness.

(b) Extension caching methods - classification, merits and demerits, factors affecting. selection and use of extension teaching methods. Mass Media in Extension.

2. ADOPTION AND DIFFUSION OF AGRICULTURAL INNOVATION

(a) Meaning and definition of innovation, diffusion, adoption, diffusion effect and rate of adoption, Factors affecting adoption. Difference between diffusion and communication. Innovation decision process, categories of adopters, characteristics of innovations.

3. EXTENSION SYSTEM IN INDIA

(a) First line extension system - ICAR and its role in technology transfer.

(b) Technology Transfer-Meaning and concept.

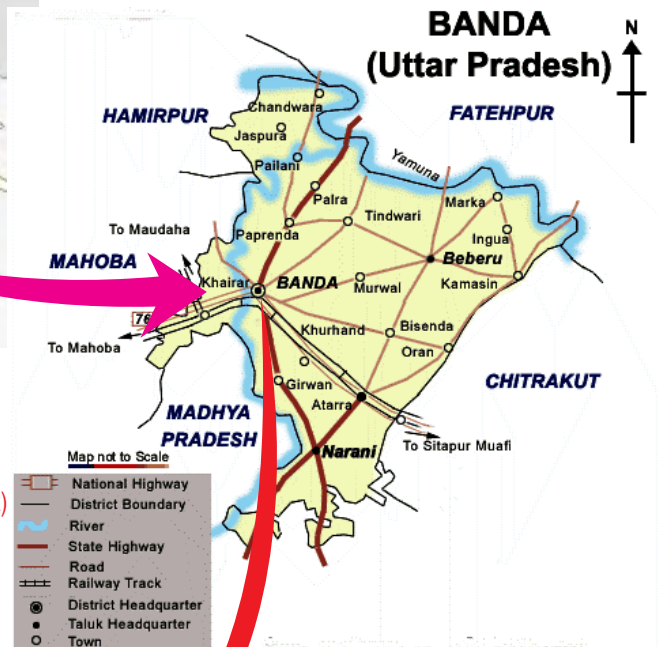
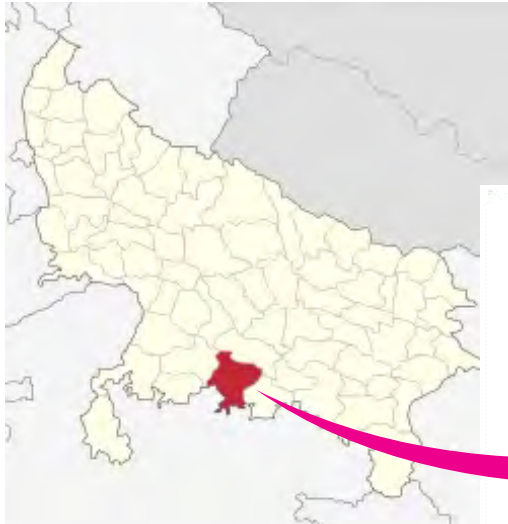
(c) Brief knowledge about KVK, NATP, NAIP.ATMAANDAgri-clinic.

(d) Other extension service providers and their role (including Public and .Private Sectors).

Practical

1. Preparation, procurement and handling of audio-visual aids.
2. Acquaintance with new generation aids like cell phone, Lap top & Digital Camera.
3. Organizing group discussion, campaign, seminar, exhibition and demonstration.
4. Practices in writing news letter, circular letter, radio and television scripts on different farm practices.
5. Identification of adopter categories among farmers.
6. Collection of data regarding rate of adoption for the adoption of different farm practices in different years.
7. Preparation of practical record.

Location of **Zila Parishad Krishi Mahavidyalaya** Banda (U.P.)



Distance of College from main places of Banda City

1. From Railway Station 1.2 km. (approx)
2. From UP State Roadways Bus Stand 1.5 km. (approx)
3. From Babulal Chauraha - 300 mtr.





23वाँ स्थापना दिवस समारोह
 दिनांक 1 फरवरी 2016 को
संस्थापक अध्यक्ष / प्रबंधक
स्वर्गीय ठा. चन्द्रपाल सिंह जी
 की प्रतिमा का अनावरण